

COMMITTEE DATE: 11/11/2015

APPLICATION No. **14/00851/DCO** APPLICATION DATE: 03/04/2014

ED: **PONTPRENNAU/ST MELLONS**

APP: TYPE: Full Planning Permission

APPLICANT: EEW Eco Energy World Ltd

LOCATION: FAIRWATER FARM, MICHAELSTON-Y-FEDW, OLD ST MELLONS

PROPOSAL: INSTALLATION OF A GROUND MOUNTED PHOTOVOLTAIC (SOLAR ELECTRICITY) PLANT , INCLUDING THE ERECTION OF TRANSFORMERS AND OTHER ANCILLARY EQUIPMENT, TRACKS, DRAINAGE, FENCING, CCTV, LANDSCAPING AND ALL ASSOCIATED BUILDING AND ENGINEERING OPERATIONS, FOR USE FOR A PERIOD OF UP TO 25 YEARS

RECOMMENDATION 1: That planning permission be **GRANTED** subject to the following conditions :

1. C01 Statutory Time Limit
2. The development shall be carried out in accordance with the following approved plans and documents:

A082921 1-01C: Application Site Boundary – received 28th April 2015;
01 r.1: General Layout – received 30th September 2015;
Drawing: “Construction 33 degree var. 830mm” – received 8th April 2014;
Drawing: “Construction 33 degree var. 1100mm” – received 8th April 2014;
Drawing: “Transformer TS1-TS18” – received 8th April 2014;
Drawing: “CCTV Pole/Camera” – received 8th April 2014;
Drawing: “Connection Point LV/HV-DNO” – received 8th April 2014;
Drawing: “Fence, Gate” – received 8th April 2014;
Flood Consequences Assessment and Drainage Strategy produced by FMW Consultancy, Reference FMW1325/Issue 2 dated 25th February 2014 – received 10th April 2014;
Michaelston y Fedw Solar Farm, Revised Proposal, Extended Phase 1 Habitat Survey dated 1st April 2015 prepared by White Young Green Planning and Environment – received on 7th April 2015;
Archaeology and Heritage Desk-Based Assessment & Geophysical Survey, WYG, revised March 2015 – received 7th April 2015;
Agricultural Considerations, Kernon Countryside Consultants, June 2014 – received 11 July 2014;
Revised Transport Statement, EEW Eco Energy World, revised March 2015 - received 7th April 2015;

Decommissioning Statement – received 18th August 2015.

Reason: For the avoidance of doubt as to the extent of the permission.

3. No demolition, site preparation or development shall take place until the following have been submitted to and approved in writing by the Local Planning Authority (LPA) in accordance with the current British Standard 5837:

- An Arboricultural Method Statement (AMS) detailing the methods to be used to prevent loss of or damage to retained trees within and bounding the site, and existing structural planting or areas designated for new structural planting. The AMS shall include details of site monitoring of tree protection and tree condition by a qualified arboriculturist, undertaken throughout the development and after its completion, to monitor tree condition. This shall include the preparation of a chronological programme for site monitoring and production of site reports, to be sent to the LPA during the different phases of development and demonstrating how the approved tree protection measures have been complied with.
- A Tree Protection Plan (TPP) in the form of a scale drawing showing the finalised layout and the tree and landscaping protection methods detailed in the AMS that can be shown graphically.
Unless written consent is obtained from the LPA, the development shall be carried out in full conformity with the approved AMS and TPP.

Reason: In the interests of visual amenity and tree protection, in accordance with policy 11 of the Cardiff Local Plan and policies 2.20 and 2.45 of the deposit Cardiff Unitary Development Plan.

4. No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted to and approved in writing by the local planning authority.

Reason: To identify and record any features of archaeological interest discovered during the works, in order to mitigate the impact of the works on the archaeological resource, in accordance with policy 2 of the Cardiff Local Plan and policy 2.50 of the deposit Cardiff Unitary Development Plan.

5. The rating level of the noise emitted from fixed plant and equipment located at the site shall not give rise to an adverse impact at any premises used for residential purposes when measured and corrected in accordance with BS 4142: 2014.

Reason: To ensure that the amenities of occupiers of other premises in the vicinity are protected in accordance with policy 2.24 of the deposit Cardiff Unitary Development Plan.

6. The permission hereby granted shall expire 25 years from the date when electrical power is first exported ('first export date') from the solar farm to the electricity grid network, excluding electricity exported during initial testing and commissioning. Written confirmation of the first export date shall be provided to the Local Planning Authority no later than one calendar month after the event.
Reason: the proposed scheme has a 25 year lifespan.
7. The ground mounted plant, including all associated buildings, transformers and other ancillary equipment, tracks, fencing and CCTV equipment, shall have been decommissioned and removed from the land in its entirety within 12 months of the plant ceasing to operate and the land shall be restored to full agricultural use in accordance with a timetable and scheme of work which shall have been submitted to and approved in writing by the local planning authority.
Reason: The proposed plant is designed to operate for 25 years and must be removed from the land after it ceases to operate in order to ensure that the site is fully restored to allow agricultural use and that it does not detract unnecessarily from the character and appearance of the area, in accordance with policy 5 of the Cardiff Local Plan and policy 2.39 of the deposit Cardiff Unitary Development Plan.
8. If the solar farm hereby permitted fails to produce electricity for supply to the grid for a continuous period of 6 months, a scheme shall be submitted to the Local Planning Authority for its written approval within 3 months of the end of that 6 month period for the repair or removal of the solar farm. Where repairs or replacements are required the scheme shall include a proposed programme of remedial works. Where removal of the solar farm is required the scheme shall include the same details required under condition 7 of this permission. The relevant scheme shall thereafter be implemented in accordance with the approved details and timetable.
Reason: to ensure the solar farm beneficially generates electricity or is otherwise removed to the benefit of the character and appearance and the agricultural potential of the area, in accordance with policy 5 of the Cardiff Local Plan and policy 2.39 of the deposit Cardiff Unitary Development Plan.
9. No development shall take place until a scheme of construction management has been submitted to and approved in writing by the local planning authority. Such a scheme shall include the phasing of construction works; any temporary site access roads/haul roads and other areas of hardstanding, including areas of temporary road matting; parking facilities for delivery vehicles and staff vehicles within the site; details of the location of compounds for the storage of plants and materials; measures to prevent dust pollution; plant and wheel washing facilities. The scheme shall be carried out in accordance with the approved details. The approved measures shall remain in operation for the duration of the construction period unless otherwise agreed in writing by the local planning authority.

Reason: In the interests of highway safety and public amenity, in accordance with policies 2.24 and 2.57 of the deposit Cardiff Unitary Development Plan.

10. Prior to the commencement of development details of surface water drainage works shall be submitted to and approved in writing by the local planning authority and the approved details shall be implemented before the development is brought into beneficial use. These details shall demonstrate that any proposed scheme shall ensure that run-off from the proposed development is reduced or will not exceed existing runoff rates and shall illustrate how the proposed surface water drainage system will be constructed and maintained, and shall include a management and maintenance plan for the lifetime of the development which shall include the arrangements for adoption by any public authority or statutory undertaker and any other arrangements to secure the operation of the scheme throughout its lifetime.

Reason: In the interests of the proper drainage of the site, in accordance with policy 2.61 of the deposit Cardiff Unitary Development Plan.

11. No development shall commence until a Habitat Management Plan has been submitted to and approved in writing by the Local Planning Authority. The works shall proceed in full accordance with the agreed Habitat Management Plan.

Reason: In the interests of biodiversity, in accordance with policy 2.48 of the deposit Cardiff Unitary Development Plan and paragraph 5.5.11 of Planning Policy Wales (2014).

12. No tracks shall be constructed on the site until details of their construction have been submitted to and approved in writing by the Local Planning Authority. Following the Local Planning Authority's written agreement, any tracks shall be constructed fully in accordance with the agreed details.

Reason: To ensure any tracks are constructed in a fully reversible way in the long-term interests of restoring the site to agricultural use, in accordance with policy 5 of the Cardiff Local Plan and policy 2.39 of the deposit Cardiff Unitary Development Plan.

13. No development shall be carried out that is not in accordance with the Flood Consequences Assessment produced by FMW Consultancy, Reference FMW1325/Issue 2 dated 25th February 2014, and the following mitigation measures detailed within the FCA:

Solar Panel Levels

- The thresholds of the transformer and inverter stations and solar panel units must be set to a level of at least 500mm above the design 1% (1 in 100 years) plus climate change flood level. (Sections 5.2, 8.21, 9.11 and 9.14 of the FCA).

Reason: To reduce the risk of flooding to the components and associated infrastructure within the development, in accordance with policy 9 of the Cardiff Local Plan, policy 2.62 of the deposit Cardiff

14. No development shall be carried out other than in accordance with the mitigation measures identified in Section 5 of the Michaelston y Fedw Solar Farm, Extended Phase 1 Habitat Survey dated March 2014 prepared by White Young Green Planning and Environment.
Reason: In the interests of biodiversity and the protection of European Protected Species, in accordance with policy 2.48 of the deposit Cardiff Unitary Development Plan and paragraph 5.5.11 of Planning Policy Wales (2014).

RECOMMENDATION 2 : To protect the amenities of occupiers of other premises in the vicinity attention is drawn to the provisions of Section 60 of the Control of Pollution Act 1974 in relation to the control of noise from demolition and construction activities. Further to this the applicant is advised that no noise audible outside the site boundary adjacent to the curtilage of residential property shall be created by construction activities in respect of the implementation of this consent outside the hours of 0800-1800 hours Mondays to Fridays and 0800 - 1300 hours on Saturdays or at any time on Sunday or public holidays. The applicant is also advised to seek approval for any proposed piling operations.

RECOMMENDATION 3: With regard to condition 4 the developer is advised that a list of archaeological contractors who have indicated their availability to work in Wales is available from <http://www.archaeologists.net/ro>. Information on how to meet the requirements of the condition is available from http://www.ggat.org.uk/archplan/arch_planning.html.

RECOMMENDATION 4: The applicant is informed that this permission relates only to the part of the application site which lies within the administrative boundary of Cardiff Council.

RECOMMENDATION 5: The watercourse known as the River Rhydney is scheduled as a statutory main river, pursuant to the Water Resources Act 1991 and Natural Resources Wales Land Drainage Byelaws. The prior formal Flood Defence Consent of Natural Resources Wales must be obtained for any works in, under or over the watercourse, or within 7 metres of the landward toe of any flood bank or wall, or where there is no bank or wall, within 7 metres of the top of the riverbank. Section 23 of the Land Drainage Act 1991 states that the prior formal consent of the Lead Local Flood Authority is required for the erection of any mill dam, weir or other like obstruction to the flow of an ordinary watercourse or raise or otherwise alter such an obstruction; or erect any culvert that would be likely to affect the flow of any ordinary watercourse, or alter any culvert in a manner that would be likely to affect any such flow. The responsibility for the maintenance and good order of all watercourses and structures thereon rests, in the first instance, with the riparian owner. Land Drainage legislation does not seek to remove this responsibility.

1. **DESCRIPTION OF PROPOSED DEVELOPMENT**

- 1.1 This application is for full planning permission to develop land at Fairwater Farm, Michaelston-y-Fedw, for the production of solar electricity. The application site straddles the boundary between Newport and Cardiff and planning applications have been made to both Authorities relating to the parts of the site within their respective boundaries. 14 hectares falls within the boundary of Newport City Council and 3.5ha falls within the boundary of Cardiff Council.
- 1.2 The proposal is for the installation of a ground mounted photovoltaic (solar electricity) plant, including the erection of transformers and other ancillary equipment, tracks, drainage, fencing, CCTV, landscaping and all associated building and engineering operations, for use for a period of up to 25 years. Solar electricity, a form of renewable energy, will be created through the use of solar panels containing photovoltaics (PV). The process produces no emissions, waste products or pollutants. The power generated will be fed into the National Grid.
- 1.3 This solar electricity plant will generate up to 4.85 megawatts and the operational life of the plant will be up to 25 years. At the end of the operational period, the plant will be decommissioned and the site restored. The scale of the proposed development (including that part falling within the boundary of Newport) has been reduced from 18.5 megawatts and from 45 ha to 17.5 ha, largely due to the requirement to avoid development on high grade agricultural land (category 1, 2 and 3a).
- 1.4 The proposed development comprises the following:
- The creation of an access point on Began Road, to facilitate access to the site for construction vehicles and construction workers. (This is not for consideration as it is in the part of the development site that lies within the administrative boundary of Newport Council).
 - The installation of 18,654 panels (260kW) each measuring 1650mm x 992mm, which would be orientated to the south at a fixed angle of 33 degrees. Of these, 14,254 fall within Newport and 4,400 fall within Cardiff. The maximum height of the panels would be 2.91m on that part of the site within flood Zones B and C1 and 2.68m elsewhere. The panels would be mounted on a metal framework supported on steel posts, which would be driven into the ground to a maximum depth of approximately 1.7m.
 - The construction of 5 transformers, each measuring 4.57m long x 2.38m wide x 2.20m high and, alongside them, inverter cabins, each measuring 2.562m long x 0.956m wide x 2.272m high. (Only 1 transformer station would be sited within the Cardiff boundary. This would be close to the motorway bund in the southern part of the site).
 - The construction of a switch room (in part for the District Network Operator) measuring 4.76m long x 2.66m wide x 2.48m high. (This is not for consideration as it is in the part of the development site that lies within the administrative boundary of Newport Council).

- The panels would be connected to the inverters and sub-stations by underground cables installed in 0.8m wide trenches to a maximum depth of 1.2m.
- The installation of a security fence, 2.4m high, dark green in colour, around the perimeter of the development, with gates. The fence within the Cardiff boundary would be around the site perimeter alongside the temporary access track to the east of the belt of trees, to the north of the woodland and to the west of the motorway bund).
- The plant would not be illuminated, but would be protected by CCTV cameras mounted on poles the same height as the fence, at a total height of 2.7m. (9 CCTV cameras would be located within the Cardiff boundary, around the western, eastern and southern perimeter of the site).
- The construction of access tracks and drainage swales. (Within the Cardiff boundary, access tracks would be on the site perimeter. There are existing drainage ditches on the edges of the site).
- Hedgerow and buffer planting at selected locations.

1.5 The construction of the development would take approximately 12 weeks and would be carried out by approximately 30 construction workers. The proposed hours for construction work are: Mondays to Fridays: 0700 – 1830 hours; Saturdays: 0700 – 1830 hours; Sundays & public holidays: no working. Traffic generation during the construction period is estimated as 1-3 heavy goods vehicles per day and approximately 10 other vehicles per day.

1.6 The estimated lifetime of the development is 25 years, which is the period for which planning permission is sought. During this period, the only works required to be undertaken at the site would be for management and maintenance, including cleaning of the solar panels. Throughout the operational period, traffic flows to the site would be very low, comprising maintenance vehicles: it is estimated that two people using a 4x4 vehicle would visit the development once a month. During the operational period grazing of land within the site would continue.

1.7 At the end of the operational life of the development, the plant will be decommissioned and the site restored. Restoration would entail removal of the solar panels, mounting framework and their supports; removal of the inverters, transformers and all other above ground infrastructure; removal of the perimeter security fence and CCTV and reinstatement of the land to full agricultural use.

2. **DESCRIPTION OF SITE**

2.1 The site is located to the south-west of the village of Michaelston-y-Fedw, some 600m south west of Fairwater Farm, to the west of Newport and north-east of Cardiff. The total site extends to around 17.5 hectares in total, the part located within Cardiff's boundary being around 3.5 hectares. The application site consists of five parcels of land, 4 being in Newport and 1 in Cardiff.

2.2 The site is currently in agricultural use (arable) and there are trimmed hedgerows and trees on the boundaries, the trees on the western boundary

being protected by a Tree Preservation Order (City of Cardiff (M4 Corridor, Castleton to Coryton) TPO 1976)). There is a small area of woodland abutting the southern boundary, which extends to the boundary with the M4 motorway around 90m from the application site. The woodland is locally designated as a Site of Importance for Nature Conservation. A grassed embankment, along with the woodland, screens the site from the M4.

- 2.3 The surrounding area is primarily agricultural, including nurseries to the west of the site. The site forms part of Fairwater Farm and is used for growing crops including maize, wheat and rape seed.

3. **SITE HISTORY**

- 3.1 09/01503/E – Proposed 18 hole golf course & club house. Withdrawn.

4. **POLICY FRAMEWORK**

- 4.1 *South Glamorgan (Cardiff Area) Replacement Structure Plan 1991 - 2011* –
EV1 (Towards sustainable development);
C1 (General Countryside Protection);
C2 (Landscape Protection);
C6 (Agricultural Land);
CL2 (Flooding Risk);
U3 (Renewable Energy).
- 4.2 *Cardiff Local Plan* –
5 (The Countryside Including the Urban Fringe);
9 (Development in Areas at Risk of Flooding);
11 (Design and Aesthetic Quality);
17 (Parking and Servicing Facilities)
- 4.3 *Supplementary Planning Guidance - Access, Circulation and Parking Standards* (January 2010); *Trees and Development* (March 2007).
- 4.4 *Deposit Cardiff Unitary Development Plan* –
2.20 (Good Design);
2.24 (Residential Amenity);
2.39 (General Countryside Protection);
2.40 (Agricultural Land);
2.41 (Development within Green Belt Areas);
2.43 (General Landscape Protection);
2.45 (Trees, Woodlands and Hedgerows);
2.48 (Biodiversity);
2.57 (Access, Circulation and Parking Requirements);
2.62 (Flood Risk);
2.64 (Air, Noise and Light Pollution).
- 4.5 *Planning Policy Wales (July 2014)*:
4.2.4: Legislation secures a presumption in favour of development in

accordance with the development plan for the area unless material considerations indicate otherwise. Where there is no adopted development plan or relevant policies are considered outdated or superseded or there are no relevant policies, there is a presumption in favour of proposals in accordance with the key principles and key policy objectives of sustainable development in the planning system.

4.4.3: Planning policies and proposals should (inter alia)

- Support the need to tackle the causes of climate change by moving towards a low carbon economy
- Minimise risks relating to unstable land, contaminated land and flooding
- Play a role in securing the provision of infrastructure
- Maximise the use of renewable resources
- Support initiative and innovation
- Promote a low carbon economy and social enterprises

4.6.4: The countryside must be conserved and where possible enhanced for its ecological, geological, physiographic, historical, archaeological and agricultural value and for its landscape and natural resources, balancing the need to conserve these attributes against the economic, social and recreational needs of local communities and visitors.

4.8.14: There is a presumption against inappropriate development in green belts or green wedges.

4.10.1: In the case of agricultural land, land of grades 1, 2 and 3a of the Department for Environment, Food and Rural Affairs (DEFRA) Agricultural Land Classification system (ALC) is the best and most versatile, and should be conserved as a finite resource for the future. In development plan policies and development management decisions considerable weight should be given to protecting such land from development, because of its special importance. Land in grades 1, 2 and 3a should only be developed if there is an overriding need for the development, and either previously developed land or land in lower agricultural grades is unavailable, or available lower grade land has an environmental value recognised by a landscape, wildlife, historic or archaeological designation which outweighs the agricultural considerations. If land in grades 1, 2 or 3a does need to be developed, and there is a choice between sites of different grades, development should be directed to land of the lowest grade.

4.11.9: Visual appearance, scale and relationship to surroundings and context are material planning considerations. Local planning Authorities should reject poor building and contextual designs.

4.11.12: Local Authorities are under a legal obligation to consider the need to prevent and reduce crime and disorder in all decisions that they take.

5.2.8: Local Authorities must address biodiversity issues, insofar as they relate to land use planning, in development control decisions.

5.2.9: Local Planning Authorities should seek to protect trees, groups of trees and areas of woodland where they have natural heritage value or contribute to the character or amenity of a locality.

12.8.1: The UK is subject to the requirements of the EU Renewable Energy Directive. These include a UK target of 15% of energy from renewables by 2020. The UK Renewable Energy Roadmap sets the path for the delivery of these targets, promoting renewable energy to reduce global warming and to secure future energy supplies. The Welsh Government is committed to playing

its part by delivering an energy programme which contributes to reducing carbon emissions as part of our approach to tackling climate change whilst enhancing the economic, social and environmental wellbeing of the people and communities of Wales in order to achieve a better quality of life for our own and future generations. This is outlined in the Welsh Government's Energy Policy Statement *Energy Wales: A Low Carbon Transition* (2012).

12.8.6: The Welsh Government's aim is to secure an appropriate mix of energy provision for Wales which maximises benefits to our economy and communities, whilst minimising potential environmental and social impacts. This forms part of the Welsh Government's aim to secure the strongest economic development policies to underpin growth and prosperity in Wales recognising the importance of clean energy and the efficient use of natural resources, both as an economic driver and a commitment to sustainable development.

12.8.8: The Welsh Government is committed to using the planning system to: optimise renewable energy generation; optimise low carbon energy generation; facilitate combined heat and power systems (and combined cooling, heat and power) where feasible; and recognise that the benefits of renewable energy are part of the overall commitment to tackle climate change by reducing greenhouse gas emissions as well as increasing energy security.

12.8.9: Local authorities should facilitate the development of all forms of renewable and low carbon energy to move towards a low carbon economy.

12.10.1: In determining applications for renewable and low carbon energy development and associated infrastructure local planning authorities should take into account:

- the contribution a proposal will play in meeting identified national, UK and European targets and potential for renewable energy, including the contribution to cutting greenhouse gas emissions;
- the wider environmental, social and economic benefits and opportunities from renewable and low carbon energy development;
- the impact on the natural heritage, the Coast and the Historic Environment
- the need to minimise impacts on local communities to safeguard quality of life for existing and future generations;
- ways to avoid, mitigate or compensate identified adverse impacts;
- the impacts of climate change on the location, design, build and operation of renewable and low carbon energy development. In doing so consider whether measures to adapt to climate change impacts give rise to additional impacts;
- grid connection issues where renewable (electricity) energy developments are proposed; and
- the capacity of and effects on the transportation network relating to the construction and operation of the proposal.

12.10.3: Developers for renewable and low carbon energy developments should seek to avoid or where possible minimise adverse impacts through careful consideration of location, scale, design and other measures.

13.2.1: Flood risk is a material planning consideration.

4.6 *Technical Advice Note 6 (Planning for Sustainable Rural Communities):*

6.2.1 - When preparing development plans and considering planning applications, planning authorities should consider the quality of agricultural land and other agricultural factors and seek to minimise any adverse effects on

the environment.

6.2.2 - Planning authorities should bear in mind that, once land is built on, the restoration of semi-natural and natural habitats and landscape features is rarely possible and usually expensive, and archaeological and historic features cannot be replaced. Also, once agricultural land is developed, even for 'soft' uses such as golf courses, its return to agriculture as best and most versatile agricultural land is seldom practicable.

6.2.3 - Agricultural land is classified by grades according to the extent to which its physical or chemical characteristics impose long term limitations on agricultural use for food production. There are 5 grades of land numbered 1 to 5, with grade 3 divided into two sub-grades. The best and most versatile land falls into grades 1, 2 and sub-grade 3a and is the most flexible, productive and efficient in response to inputs.

6.2.4 - The Agricultural Land Classification (ALC) map for Wales is published at a scale of 1:250,000. This map is produced for use in strategic planning and provides only a generalised indication of the distribution of land quality. The map is not suitable for use in evaluating individual sites. In such cases a resurvey at a larger scale is necessary to obtain a definitive grade.

6.2.5 - The nature of other development and its proximity to farms can influence the type of farming and the extent to which inherent land quality can be exploited. Certain locations may have agricultural advantages such as accessibility to markets, processing plant and certain industries associated with agriculture. Farms with development close to them tend to suffer from trespass and other forms of disturbance which may affect the efficiency and upkeep of holdings. It may be possible to reduce any detrimental effects of development by locating compatible uses adjacent to farm land, by landscaping or by detailed provision of amenity space and green corridors in the layout of residential development.

6.2.6 - Farms vary considerably in size, type of farm business and layout. The loss of part of a holding can have important implications for the remainder. The effect of severance and fragmentation upon the farm and its structure may be relevant.

- 4.7 *Technical Advice Note 8 – Planning for Renewable Energy (July 2005):*
3.15: Other than in circumstances where visual impact is critically damaging to a listed building, ancient monument or conservation area, proposals for appropriately designed solar thermal and PV systems should be supported.
- 4.8 *Practice Guidance – Planning Implications of Renewable Energy and Low Carbon Energy (February 2011):*
8.4.16 - In view of the national policy support for farm diversification and the relatively large area of land required for solar PV arrays it is likely that a significant proportion of proposals for solar PV arrays will be on agricultural land. Both the use of natural resources (such as high quality agricultural land) and the reversibility of a development are factors in determining if EIA is required.
8.4.17 - In addition to avoiding the best and most versatile agricultural land, other possible mitigation includes taking steps to enhance the reversibility of the development (e.g. by use of removable mats rather than permanent access tracks and use of ground screws rather than buried concrete

foundations to anchor solar arrays) and avoiding soil compaction or contamination during construction and maintenance.

- 4.9 *Practice Guidance – Planning for renewable and low carbon energy – a toolkit for planners (Sept 2015).*
- 4.10 *Technical Advice Note 15 – Development and Flood Risk (July 2004).*
- 4.11 *Natural Environment and Rural Communities Act 2006, Section 40:*
Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat.

5. **INTERNAL CONSULTEE RESPONSES**

- 5.1 *Transportation:* The Transport Statement from WYG advises that some 3/4 HGV vehicles will visit the site during the construction period, together with a further 10/11 vehicles per week delivering the solar panels. There'll also be a number of car movements by staff. I'm satisfied that these can be adequately accommodated on the existing highway network and would therefore have no objection in principle. The TS also provides advice re the routes which will be used by these vehicles to access the site, and also states that wheel washing facilities will be provided to prevent mud being carried on the highway network. However, the application form also states that zero parking is to be provided. While this may be appropriate once construction work is complete it doesn't take account of the situation during the construction period i.e. how will delivery vehicles be accommodated within the site and where will staff park their cars i.e. I am concerned that this should not take place on Began Road where it would have implications for highway safety and the free flow of traffic. Perhaps this could be best addressed by means of imposing the standard Construction Management Plan condition – but expanded to include these aspects.
- 5.2 *Drainage:* No comments received.
- 5.3 *Pollution Control (Noise & Air):* Standard construction site noise recommendation note requested.

6. **EXTERNAL CONSULTEES RESPONSES**

- 6.1 *Natural Resources Wales:*
In summary, providing NRW's advice is addressed through the implementation of appropriate conditions attached to any planning permission, NRW does not object to the proposal as submitted.
- 6.2 **Flood Risk**
The majority of the proposed development site lies within Zone A with it being partially within Zone C1, as defined by the Development Advice Map (DAM) referred to under Technical Advice Note 15. Flood Map information confirms part of the site to be within the 1% (1 in 100 years) and 0.1% (1 in 1000 year)

annual probability tidal flood outlines of the River Rhymney, which is a designated main river. NRW's historic flood maps also indicate that flooding has occurred locally along the Western Boundary adjacent to Began Road during December 1979. The planning application proposes a Ground Mounted Photovoltaic (Solar Electricity) Plant with associated infrastructure (less vulnerable development) which is partially located within a flood risk area. Section 6 of TAN15 requires the Local Planning Authority to determine whether the development at this location is justified. NRW refer the Authority to TAN15 for these considerations.

- 6.3 The Flood Consequences Assessment (FCA) produced by FMW Consultancy, Reference FMW1325/Issue 2 dated 25th February 2014 is acceptable. Conditions will be required to ensure that the development is carried out in accordance with the FCA, particularly the thresholds of the transformer and inverter stations and solar panel units must be set to a level of at least 500mm above the design 1% (1 in 100 years) plus climate change flood level. (Sections 5.2, 8.21, 9.11 and 9.14 of the FCA).
- 6.4 **Surface Water**
NRW recommend that a condition is imposed to ensure that a scheme to dispose of surface water is submitted to and approved in writing by the Local Planning Authority, to ensure effective management of surface water run-off resulting from the proposed development.
- 6.5 **European Protected Species**
NRW note that suitable habitat for bats, great-crested newts, and dormice, is considered present on site. These species are European Protected Species under the Conservation of Habitats and Species Regulations 2010 (as amended). NRW are aware of dormice using habitats immediately adjacent to the application site and therefore consider that this species is highly likely to be present in hedgerow and woodland habitats across the site. They welcome the recommendations made in Section 5 of the Michaelston y Fedw Solar Farm, Extended Phase 1 Habitat Survey dated March 2014, with regard to the retention of trees, hedgerows, wet and dry ditch habitats, and areas of woodland; the protection of retained habitat in line with best practice guidance during construction; the enhancement of habitats on site to reinforce habitat connectivity into the wider area (using native species of local provenance); the implementation of a Habitats Management Plan for all retained and created habitat to ensure suitable management to create a net biodiversity gain; the retention of adjacent farm buildings which may have the potential to support bat species; and no lighting to be installed on site. Should Cardiff Council and Newport City Council be minded to grant permission for these proposals, NRW ask that the above commitments are addressed by planning condition attached to any permission granted.
- 6.6 **Informatives**
The watercourse known as the River Rhymney is scheduled as a statutory main river, pursuant to the Water Resources Act 1991 and Natural Resources Wales Land Drainage Byelaws. The prior formal Flood Defence Consent of Natural Resources Wales must be obtained for any works in, under or over the

watercourse, or within 7 metres of the landward toe of any flood bank or wall, or where there is no bank or wall, within 7 metres of the top of the riverbank.

- 6.7 Section 23 of the Land Drainage Act 1991 states that the prior formal consent of the Lead Local Flood Authority is required for the erection of any mill dam, weir or other like obstruction to the flow of an ordinary watercourse or raise or otherwise alter such an obstruction; or erect any culvert that would be likely to affect the flow of any ordinary watercourse, or alter any culvert in a manner that would be likely to affect any such flow.
- 6.8 The responsibility for the maintenance and good order of all watercourses and structures thereon rests, in the first instance, with the riparian owner. Land Drainage legislation does not seek to remove this responsibility.
- 6.9 *South Wales Fire and Rescue Service:* The developer should consider the need for the provision of adequate water supplies on the site for firefighting purposes and access for emergency firefighting appliances.
- 6.10 *Western Power Distribution:* No comments received.
- 6.11 *Glamorgan Gwent Archaeological Trust:* These works identified a number of archaeological interests within, and close by the proposed development area, including evidence of prehistoric as well as Roman, medieval and Post-medieval activity in the form of a series of finds spots, a number of agricultural settlements and a possible medieval metal working site. Perhaps most notable of these archaeological assets is a possible Roman villa which was identified during geophysical survey.
- 6.12 The desk based assessment by White Young Green makes two recommendations concerning the archaeological resource; the first being that the area of the Roman villa be excluded from the development area, a proposal which in our view is acceptable; the second, that given the nature of the proposed development works it is unlikely that any other archaeological features would be impacted upon and therefore no further mitigation is required in the remainder of the development site, a proposal with which we do not concur. As such it is our professional opinion that an archaeological programme of work should be submitted and implemented in order to mitigate the impact of the proposed development on the archaeological resource. We therefore strongly recommend that a condition, requiring that the applicant should submit a detailed written scheme of investigation for the implementation of a programme of work, should be attached to any consent granted.
- 6.13 *Old St. Mellons Community Council:* Please record our formal objection to the above application for installation of photovoltaic panels at Fairwater Farm, Michaelston-y-Fedw. Part of the area included in the application lie in Old St. Mellons and we are objecting to the whole application, which shares a boundary with Newport City Council.
The reasons for the objection are as follows
1. The site is grade 1, 2 and 3a agricultural land, Best and Most Versatile agricultural land (BMV) which national policy says should be protected

- from development.
2. Permitting such development will have an unacceptable effect on the nature and character of the area which is of successfully farmed arable land.
 3. The impact on the landscape would be unacceptable. This is an area which is much valued for its countryside and setting for the city of Cardiff. The southern boundary lies in the Rhymney River Valley which is attractive to ramblers, cyclists, horse riders and dog walkers. It is an important recreational area for citizens of Cardiff. The southern boundary of the site is adjacent to the Cefn Mably Farm Park which is visited by thousands of families every week.
 4. The visual impact will be unacceptable with great impact on the historical Cefn Mably area which has Grade One and Two listed buildings.
 5. There is an important safety issue for M4 traffic as the panels will reflect sunlight which could dangerously impact on motorists. The panels will be sited on the north side of the motorway.
 6. The transformers will create a noise issue.

7. **REPRESENTATIONS**

7.1 The application has been advertised by press notice, site notice and neighbour notification. 11 letters of objection have been received, from 10 sources. The grounds for objection are summarised as follows:

1. The new access point on Began Road will lead to increased heavy traffic along Began Road. The road is too narrow for heavy construction traffic and is a regular scene of accidents. There is no pavement along Began Road and pedestrians will be in danger from this increased heavy traffic. Also, the fence and solar panels will reduce visibility for drivers.
2. Glare/glint from the panels will distract drivers on the M4.
3. The proposed land is excellent farm land. This type of land should be reserved for farming, and less productive land or the roofs of industrial units and Council buildings should be utilised for this type of development, where they do not have the impact that this proposal will have,
4. The applicant did not engage with the community before submitting the application.
5. Farming jobs will be lost and the proposed use does not create any long term or local employment.
6. The photomontages supplied by the developer are generally taken from quite some distance away and therefore do not show the true impact close up.
7. This scheme when added to other solar farms, wind turbines and development south of the A48M would amount to overdevelopment in a countryside location.
8. The land owner has told local residents that he had effectively been duped into signing an agreement with the developers. The developers have a track record of finding sites, obtaining planning permission, constructing the sites and then selling them on. This is purely big business wanting to make quick money by industrialising the

- countryside.
9. If permission is granted it should be subject to a bond equivalent to the estimated cost of returning this site to its current condition so that future generations are not burdened with the decommissioning costs.
 10. The area is a popular leisure destination and should be preserved as open countryside. Public footpaths which cross the site may become unusable due to erosion and views from the paths will be lost.
 11. The development will be detrimental to wildlife - including migratory birds that use the fields - due to loss of habitat, infra-red detection, CCTV, transformers with their associated noise and possible electro-magnetic fields, solar glare and the fluids used to clean the glass. If panels are damaged this can cause contamination.
 12. The application is incomplete as it does not mentioned how the electricity will be transferred to the grid.
 13. The development will be detrimental to the visual quality and rural character of the landscape. The LVA is misleading as the photographs were taken in summer – the vegetation will not screen the site in winter. Also, new planting will take years to mature and become an effective screen.
 14. There is little confidence in the Council's ability or willingness to enforce any planting associated with this development.
 15. The transformers will be noisy.
 16. The use of CCTV will be detrimental to the privacy of residents.
 17. The area is to be designated as Green Belt in the Cardiff LDP: the development is not appropriate to a Green Belt.
 18. The development will join up the cities of Cardiff and Newport.
 19. There will be an adverse impact on property values in the area.
 20. The covering of the land with solar panels will change the natural aquifer. Some residents not have the benefit of a mains water supply and rely totally on well water generated from natural springs in the hillside, which would be affected by the development.

7.2 Councillor Dianne Rees and the Old St Mellons Community Council object to the development as follows:

1. The site is grade 1, 2 and 3a agricultural land, Best and Most Versatile agricultural land (BMV) which national policy says should be protected from development.
2. Permitting such development will have an unacceptable effect on the nature and character of the area which is of successfully farmed arable land.
3. The impact on the landscape would be unacceptable. This is an area which is much valued for its countryside and setting for the city of Cardiff. The southern boundary lies in the Rhymney River Valley which is attractive to ramblers, cyclists, horse riders and dog walkers. It is an important recreational area for citizens of Cardiff. The southern boundary of the site is adjacent to the Cefn Mably Farm Park which is visited by thousands of families every week.

4. The visual impact will be unacceptable with great impact on the historical Cefn Mably area which has Grade One and Two listed buildings.
5. There is an important safety issue for M4 traffic as the panels will reflect sunlight which could dangerously impact on motorists. The panels will be sited on the north side of the motorway.
6. The transformers will create a noise issue.
7. Access will be along the narrow single track lanes of Began Road and Druidstone road which will create additional traffic problems with heavy goods vehicles needing to access the site.
8. Chemicals used in the photovoltaic panels may pollute the water courses in the area when leaching occurs.

8. **ANALYSIS**

- 8.1 The main considerations with regard to this proposal are whether it complies with policies relating to development in the countryside and development of agricultural land, and the impact on visual amenity and protected trees. With regard to policy considerations, the site is identified as countryside including the Urban Fringe on the proposals map of the City of Cardiff Local Plan 1996 (Policy 5). It requires consideration as to whether the proposed development is an appropriate use within a rural area. In relation to land use policy, South Glamorgan (Cardiff Area) Replacement Structure Plan 1991-2011 policy U3 is relevant. Policy U3 favours proposals to produce energy from renewable sources where there is no unacceptable adverse impact on: (a) the visual quality of the surrounding landscape, especially in areas of landscape importance defined in the plan; and (b) nature conservation, archaeological, mineral and water resources and local amenity, including traffic generation.
- 8.2 The provision of solar electricity plants is supported by national planning policy: Planning Policy Wales states that “Local authorities should facilitate the development of all forms of renewable and low carbon energy to move towards a low carbon economy” and Technical Advice Note 8 – Planning for Renewable Energy (July 2005) states that “Other than in circumstances where visual impact is critically damaging to a listed building, ancient monument or conservation area, proposals for appropriately designed solar thermal and PV systems should be supported.” PPW requires local planning authorities to take into account:
 - the contribution a proposal will play in meeting identified national, UK and European targets and potential for renewable energy, including the contribution to cutting greenhouse gas emissions;
 - the wider environmental, social and economic benefits and opportunities from renewable and low carbon energy development;
 - the impact on the natural heritage, the Coast and the Historic Environment
 - the need to minimise impacts on local communities to safeguard quality of life for existing and future generations;
 - ways to avoid, mitigate or compensate identified adverse impacts;
 - the impacts of climate change on the location, design, build and operation of renewable and low carbon energy development. In doing so consider whether measures to adapt to climate change impacts give rise to additional

impacts;

- grid connection issues where renewable (electricity) energy developments are proposed; and
- the capacity of and effects on the transportation network relating to the construction and operation of the proposal.

8.3 The proposal is considered to be in accordance with the above requirements:

- It will contribute to the country's requirement for renewable energy production (the UK is subject to the requirements of the European Union's Renewable Energy Directive (2009) and the UK Government has committed to attaining a target of 15% of energy from renewables by 2020; the Welsh Government has stated that it aims, by 2050 at the latest, to meet almost all of Wales' local energy needs from low carbon electricity production).
- It will contribute to the wider environmental, social and economic benefits of renewable energy.
- It will not have any adverse impact on natural heritage or the historic environment. GGAT are satisfied that any impact on the archaeological resource can be mitigated by the implementation of a programme of archaeological work, and no objections have been raised by Natural Resources Wales or the Council's Ecologist with regard to any impact on protected species. The site is not designated for its nature conservation value and is not located in an area that has been identified for its nature conservation interest. No protected species have been recorded on the site. There are trees on the perimeter of the site, some of which are subject to a Tree Preservation Order, but these can be adequately protected (details of appropriate tree protection measures can be sought via a planning condition).
- It will not have any significant adverse impact on nearby communities. It will not generate noise, there will be no additional traffic associated with the solar plant, there will be no loss of any community facilities and it will not result in the loss of important views.
- Possible adverse impacts will be mitigated by locating the panels within an area that is not highly visible from public viewpoints and retaining trees as a visual screen.
- Possible impacts of climate change (in this case increased flood risk) are dealt with by mounting the panels on taller frames in the higher risk areas.
- Within the Cardiff boundary, the connection cables will be underground in trenches. There are no overhead cables in this area. Grid connection issues will be considered by Newport Council in their determination of the application relating to the larger part of the development.
- No concerns have been raised by Transportation officers regarding construction traffic, provided a condition is imposed to ensure that parking for construction vehicles is accommodated within the site. No significant traffic will be associated with the operation of the solar plant once it has been constructed.

8.4 With regard to the objections submitted by the public and by the Community Council (see paragraphs 7.1 and 7.2 above) I would comment as follows:

- 1) No concerns have been raised by Highways officers and the developer will be required to adhere to an approved construction management scheme. During the construction period it is not proposed that any construction traffic will use roads within Cardiff – all traffic will approach the site from the north. It is for Newport Council to consider whether this is acceptable. The fence and panels will be more than 100 metres from the highway and will not affect visibility.
- 2) The part of the plant within the Cardiff boundary will be adequately screened from the M4 by an existing earth bund and existing woodland.
- 3) The developer was required to submit an independent report on the potential effects of the proposed development on the agricultural resources. The report concludes that the land within the Cardiff section of the site is waterlogged for long periods in winter, has medium clay loam topsoil and is therefore classified as Grade 3b (“Moderate”). Only agricultural land classified as Grade 1, 2 and Subgrade 3a falls in the ‘*best and most versatile*’ category. The report also concludes that the land quality will not be affected by the proposals which are wholly reversible and that during the life of the solar park the site can continue in agricultural use - there is the potential for either sheep to graze the land and/or mowing/topping to be carried out as necessary as part of grassland management. The key objective of planning policies relating to agricultural land quality is to ensure that the BMV (best and most versatile) land resource is conserved, so that should we ever reach a point where the requirement for food production outstrips the need for energy production, the resource is available. In this case, the panels could be removed in a short period of time if other land use needs were greater. The Welsh Government Land Division, in response to consultation by Newport Council on the amended plans for this development (which removed the better grades of agricultural land from the proposal) conclude that they have no objections on the basis that the proposal area is now wholly Agricultural Land Classification Grade 3b agricultural land and as such no longer in conflict with Welsh Government planning policy towards the conservation of Best Most Versatile land (paragraph 4.10.1, PPW).
- 4) Applicants are not obliged to consult the community before submitting planning applications. This is not a valid reason for refusing the application.
- 5) There is no evidence that jobs will be lost as a result of this development. Agricultural activity – e.g. sheep grazing or grassland management - can continue on the site.
- 6) The photographs are part of a landscape impact evaluation and by necessity have to be taken from some distance away. The Landscape and Visual Impact Assessment has been prepared in accordance with the industry-standard Guidelines and contains a comprehensive assessment of the effects of the development on landscape and visual amenity during construction and operation. The report includes a glare and glare analysis and photomontages showing how the development will appear from different viewpoints in the local area. The LVA concludes that views of the development from Cardiff are largely restricted by vegetation and intervening features and the overall impact

- will be negligible.
- 7) The other developments mentioned by the objector are at some distance, and not visible, from the application site. There will be no cumulative adverse impact.
 - 8) Any agreements between the developer and the landowner are a private legal matter and not a material planning consideration.
 - 9) A planning condition can be used to require appropriate site restoration. The decommissioning of the plant will be a relatively simple process which can be carried out within a couple of months – the cost would not be so great that a bond would be necessary.
 - 10) The development within the Cardiff section of the site will not be highly visible. It will be set back from the highway by around 100m and there are no public rights of way on or adjacent to this part of the application site. The nearest public footpath emerges from the west onto Began Road on the opposite side of the highway and is not affected by the development. Newport Council has also concluded that the development will have no detrimental impact on public rights of way within its area.
 - 11) No objections have been raised by Natural Resources Wales or the Council's ecologist with regard to any impact on wildlife. Neither Pollution Control officers nor Natural Resources Wales has raised contamination as an issue of concern.
 - 12) The transfer of electricity to the grid will not take place within this section of the site and is not relevant to the determination of this application.
 - 13) The development will have little impact on landscape quality or rural character. The LVA shows that landform as well as vegetation will screen the development. Winter vegetation will still provide a certain amount of screening. No new planting is proposed for the Cardiff site as it is already surrounded on 3 sides by dense woodland, mature trees and hedges and an earth bund but planting is proposed within the Newport section of the site and this has been approved by that Authority, with further details to be approved before development commences.
 - 14) The relevant Local Authority will have powers to take enforcement action if conditions are not complied with and will have to make a judgment as to whether such action is expedient at the time. This is not a material planning consideration.
 - 15) The transformer on this site will be around 250m from the nearest residential property and will not cause noise nuisance. A condition can also be attached to the approval, limiting the permitted noise levels. The applicant has carried out an environmental noise survey and the results have been used to set source design noise limits for the Transformer/Inverter Stations in line with Newport City Council's planning condition (which is the same as the noise condition recommended in this report).
 - 16) The CCTV cameras will be aimed at the solar panels, away from the nearest residential properties which will be more than 150m from the cameras on the opposite side of a belt of trees.
 - 17) The LDP is not an adopted development plan. Furthermore, the proposed Green Belt policy states that development in this area "which prejudices the open nature of this land" will not be permitted. Planning

Policy Wales states that development within a Green Belt would be inappropriate development unless it would maintain the openness of the Green Belt and would not conflict with the purposes of including land within it, i.e. i) prevent the coalescence of large towns and cities with other settlements; ii) manage urban form through controlled expansion of urban areas; iii) assist in safeguarding the countryside from encroachment; iv) protect the setting of an urban area; and v) assist in urban regeneration by encouraging the recycling of derelict and other urban land. This development will not conflict with any of these criteria:

- i) This small part of the potential future Green Belt is not crucial in preventing the coalescence of Cardiff and Newport, or any other settlements;
- ii) The proposed development will not set a precedent that would encourage further expansion of buildings into this area, outside the current settlement boundary - expansion of the existing urban areas will still be controlled;
- iii) Solar farms, by necessity, have to be located in the countryside. The proposed development will not set a precedent that would make it difficult to refuse permission for other "non-rural" development and the Council will still be able to safeguard the countryside from encroachment;
- iv) The proposed development will not be readily visible from the wider area, as demonstrated by the Landscape and Visual Assessment submitted with the application, and this site is not one which performs a significant role in preserving the setting of Cardiff;
- v) This development will not affect urban regeneration as solar farms require large, unimpeded, invariably rural sites: the development could not be carried out on derelict or other urban land.

There are examples of solar farms that have been permitted by other Local Authorities within Green Belt areas and also examples of such development that has been refused. In the cases where permission has been granted (for example, in Stratford-on Avon in 2014) it has generally been considered that the benefits of the proposal outweighed any potential harm to the Green Belt - as well as the environmental benefit from renewable energy generation (as supported by national policy) other key benefits have been demonstrated to include limited impact on the surrounding landscape and green belt, farm diversification, biodiversity enhancements, economic benefit and the continuation of agricultural activities on the site. Limited visual impact has been the key factor. Where proposals have been refused (for example, in North East Somerset in 2013 and the Mole valley in 2014) a crucial factor has been the significant adverse visual impact on the openness of the Green Belt and the setting of rural settlements. In the case of the Fairwater Farm application, the Landscape and Visual Assessment has demonstrated that there will be little visual impact and where the solar panels will be visible, additional hedge and tree planting will be used to screen the site. For these reasons it is not considered that the potential inclusion of this site in the Green Belt in the forthcoming LDP constitutes grounds for

refusal of this application.

- 18) The development does not consist of buildings and urban structures that would coalesce the built up areas of the cities. The two settlements will remain distinct.
- 19) Property values are not a material planning consideration.
- 20) The applicant has submitted a Flood Consequences Assessment and Drainage Strategy which includes a hydrology assessment. The report concludes that the solar development panel frames will not affect ground conditions in any way. Furthermore, if any works are proposed which will affect the flow within an ordinary watercourse (including culverting) the developer will require prior written consent from the Local Authority under the Land Drainage Act 1991.

8.5 With regard to the objections of Councillor Dianne Rees and the Old St Mellons Community Council:

1. The site is grade 3b agricultural land (see above).
2. The effect on the nature and character of the area will not be so detrimental as to warrant the refusal of planning permission. There will be no loss of high quality agricultural land, no impact on the leisure use of the area and little visual impact.
- 3 & 4. The impact on the landscape of this part of the wider proposal will be negligible (see above). The setting of Cardiff will not be adversely affected. The impact on the Cefn Mably area is for Newport Council to consider as it lies within their boundary.
5. The LVA includes glint assessments and does not conclude that there will be any unacceptable impact on the M4. Highways and Transportation officers have not raised concerns regarding hazards to drivers. The Welsh Government Transport Division have advised that the site is sufficiently set back from this length of the M4 that is partly shielded by landscaping, and that as the panels are designed to absorb maximum sunlight there are not considered to be significant highway impacts – they are satisfied that the installation can operate without significant impacts to the M4.
6. There are no concerns regarding noise (see above).
7. The use of the lane by construction traffic will be temporary and a construction management scheme will be used to prevent traffic problems.
8. The potential for water pollution via accidental chemical discharge is addressed in the hydrology report, which concludes that “the solar panels, frames and associated wiring are solid state devices with no fluid, moving parts or unstable materials. There is considered to be no potential for chemical discharge. The inverter and transformer stations contain cooling fluids in the form of an oil radiator. The devices are self-contained units that are pre-assembled offsite and therefore pose little risk of accidental discharge during construction. The stations are durable industry grade non walk-in units secured with locked doors and a steel surround, similar to cabinets found on street pavements. The development will be fenced with locked gates and CCTV. Therefore there is little risk of a security breach that may result in an accidental discharge. To protect the aquatic and terrestrial ecosystem, the

prefabricated substation has an oil resistant tank, preventing environmental pollution in case of oil escaping from the transformer. The stations will not be placed within the floodplain or within 40m of a watercourse such that any spills may enter the watercourse easily or unobserved. Oil coolant spill from a station will result in its failure and loss of performance, which is monitored continuously and therefore will be realised at an early stage. Maintenance crews are expected to be routinely onsite on average twice a month. The maintenance and construction crews will have oil spill containment and clean-up kits to deal with the unlikely event of a spill.”

- 8.6 In conclusion, the development is considered to comply with local and national planning policies. It will not result in the loss of any “best and most versatile” agricultural land, it will deliver a clear benefit in the form of low carbon electricity generation which outweighs the limited and localised visual harm of the proposal, there is no evidence to suggest that it will result in increased surface water run-off and off-site flooding, no concerns have been raised by Natural Resources Wales with regard to any adverse impact on biodiversity, there will be no adverse impact on highway users or disturbance caused by increased traffic and adherence to the Decommissioning Statement will ensure that the applicant removes all structures from the site and restores the land to full agricultural use when the permission expires. There are no reasonable grounds for refusal of this application and it is recommended that permission is granted subject to the conditions set out above.

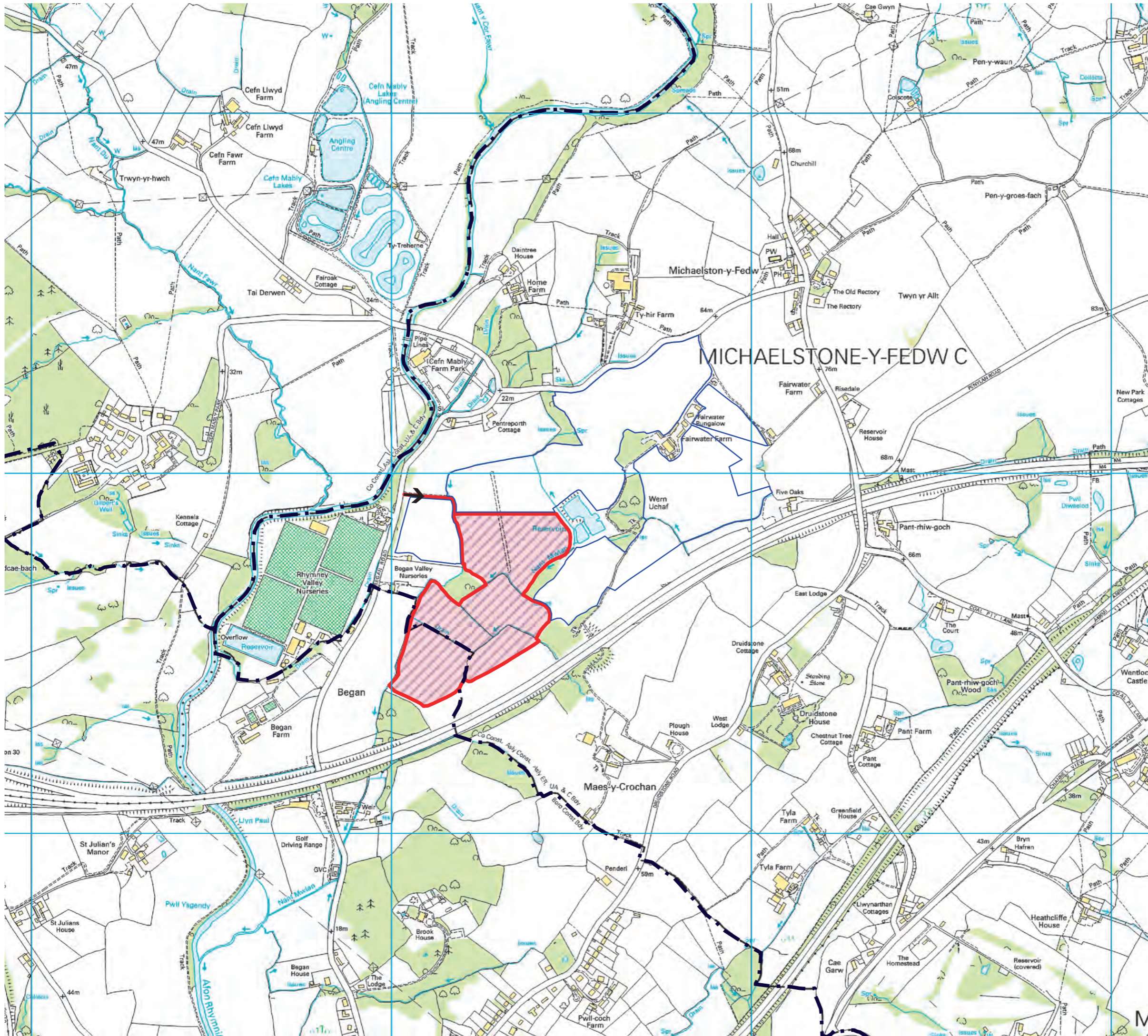
9. **OTHER CONSIDERATIONS**

9.1 *Crime and Disorder Act 1998*

Section 17(1) of the Crime and Disorder Act 1998 imposes a duty on the Local Authority to exercise its various functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent, crime and disorder in its area. This duty has been considered in the evaluation of this application. It is considered that there would be no significant or unacceptable increase in crime and disorder as a result of the proposed decision.

9.2 *Equality Act 2010*

The Equality Act 2010 identifies a number of ‘protected characteristics’, namely age; disability; gender reassignment; pregnancy and maternity; race; religion or belief; sex; sexual orientation; marriage and civil partnership. The Council’s duty under the above Act has been given due consideration in the determination of this application. It is considered that the proposed development does not have any significant implications for, or effect on, persons who share a protected characteristic, over and above any other person.



WYG

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EEW Eco Energy World

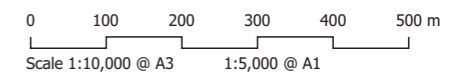
Michaelston-y-Fedw

Application site boundary

1.01^C

Key

-  Application site boundary
-  Area in which solar panels are to be located
-  Unitary authority boundary
-  Access point



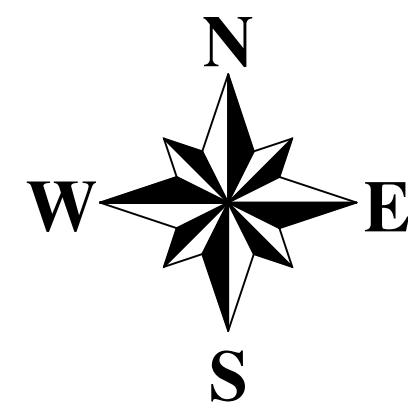
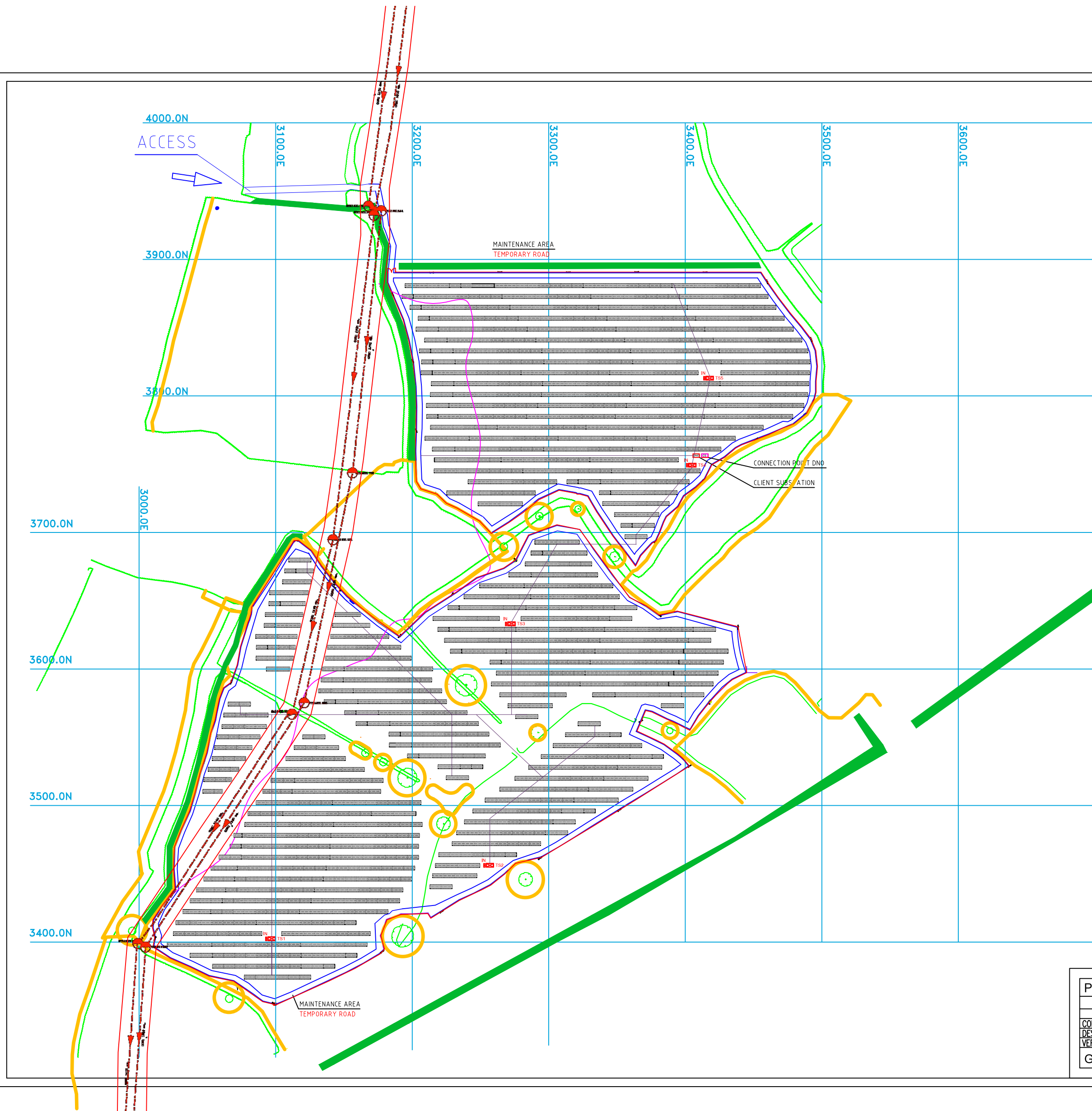
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24 April 2015

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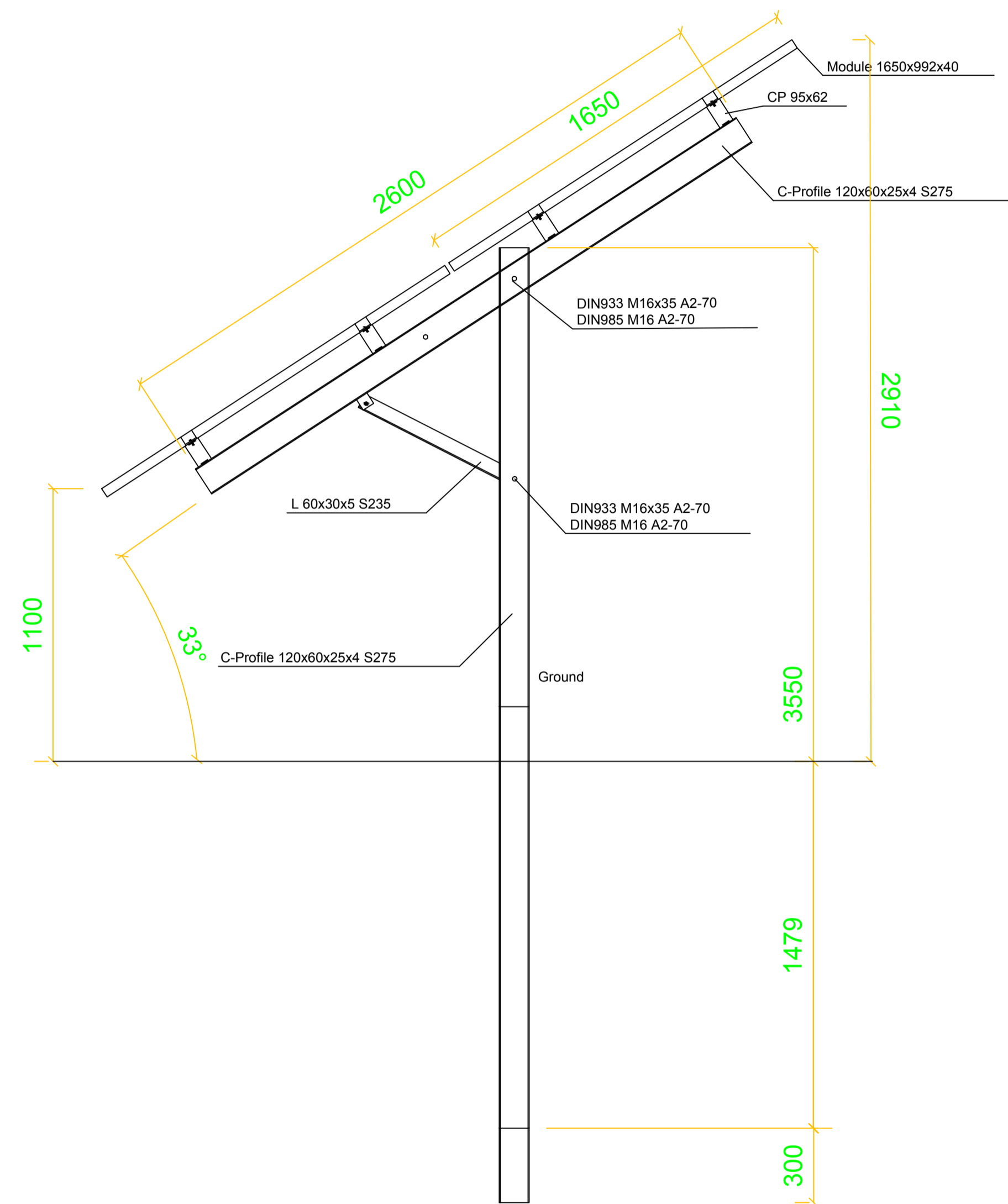


LEGEND	
[Red line]	Fence
[Green line]	Proposed structure or native planting
[Yellow line]	Roof Protection zones (10 meters from foliage and trees/ 5 meters from roads/fenc.)
[Pink line]	Flood Risk Zone 3
[Grey hatched area]	Construction (with number of modules on construction - panel 830mm from the ground)
[Dark grey hatched area]	Construction (with number of modules on construction - panel 1100mm from the ground)
[Circle with crosshair]	CCTV pole position
[Blue line]	The access tracks
[Blue dashed line]	The trench for HV cables (800x1200mm)
[Blue arrow]	Access road
[Red box with IN]	Central Inverter station (2 inverters OUTDOOR)
[Red box with TS]	Transformer station
[Pink box with CS]	Client substation
[Red box with EP]	Connection point HV/LV (DNO)

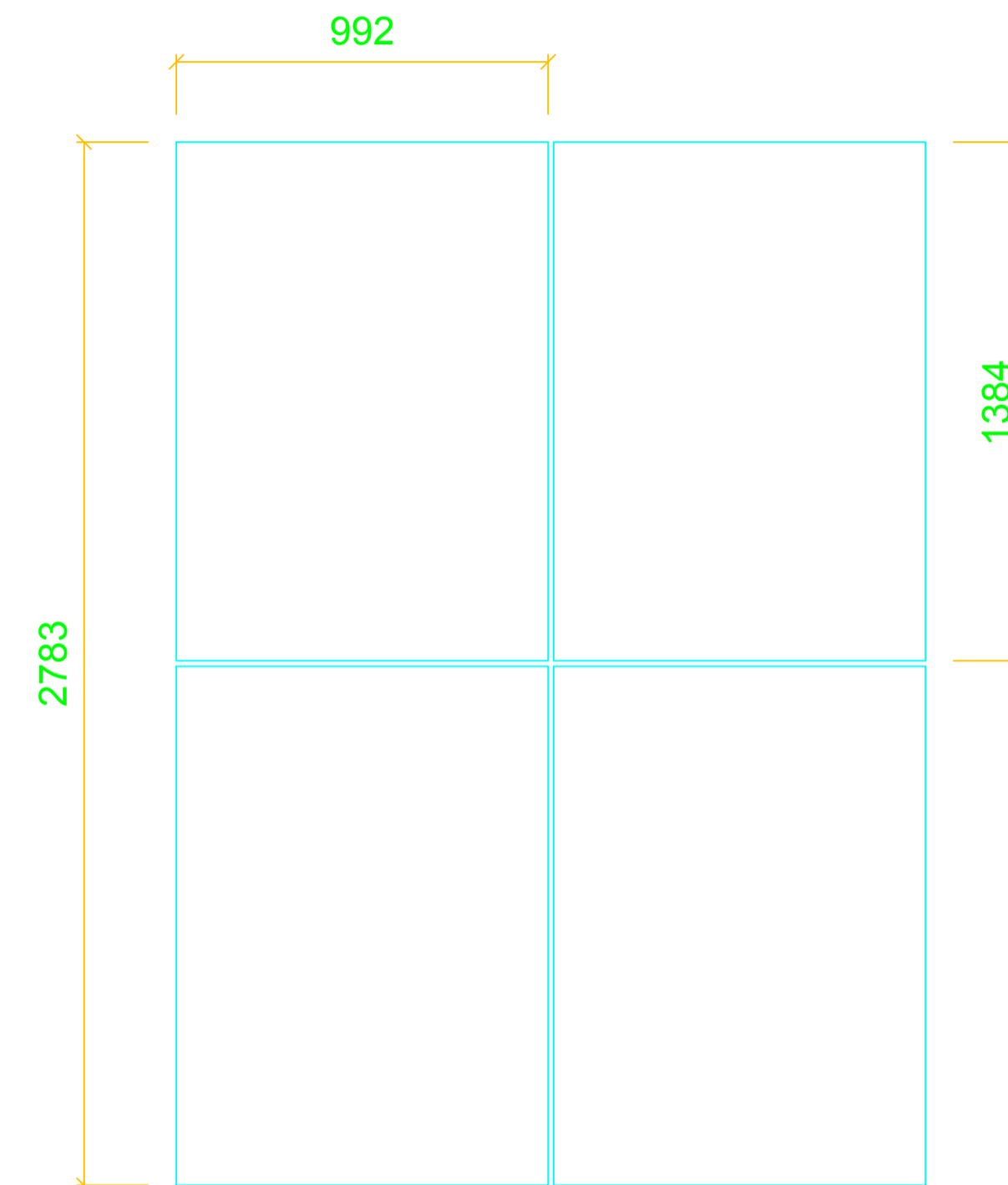
List of components	
Inverters	
Type:	CENTRAL 1MWp
Number:	5 pcs
Transformers	
Pmax:	1000 kVA
Number:	5
Power losses:	6%
Taps:	2x +/- 2,5%

PV PLANT MICHAELSTONE			
COMPANY	EKOTECHNIK	SCALE	1:1200
DESIGN	JAN MASEK	DATA	09/2015
VERIFIED	JAN MASEK	FORMAT	4xA1
GENERAL LAYOUT			01 r.1

CUT



PLATFORM

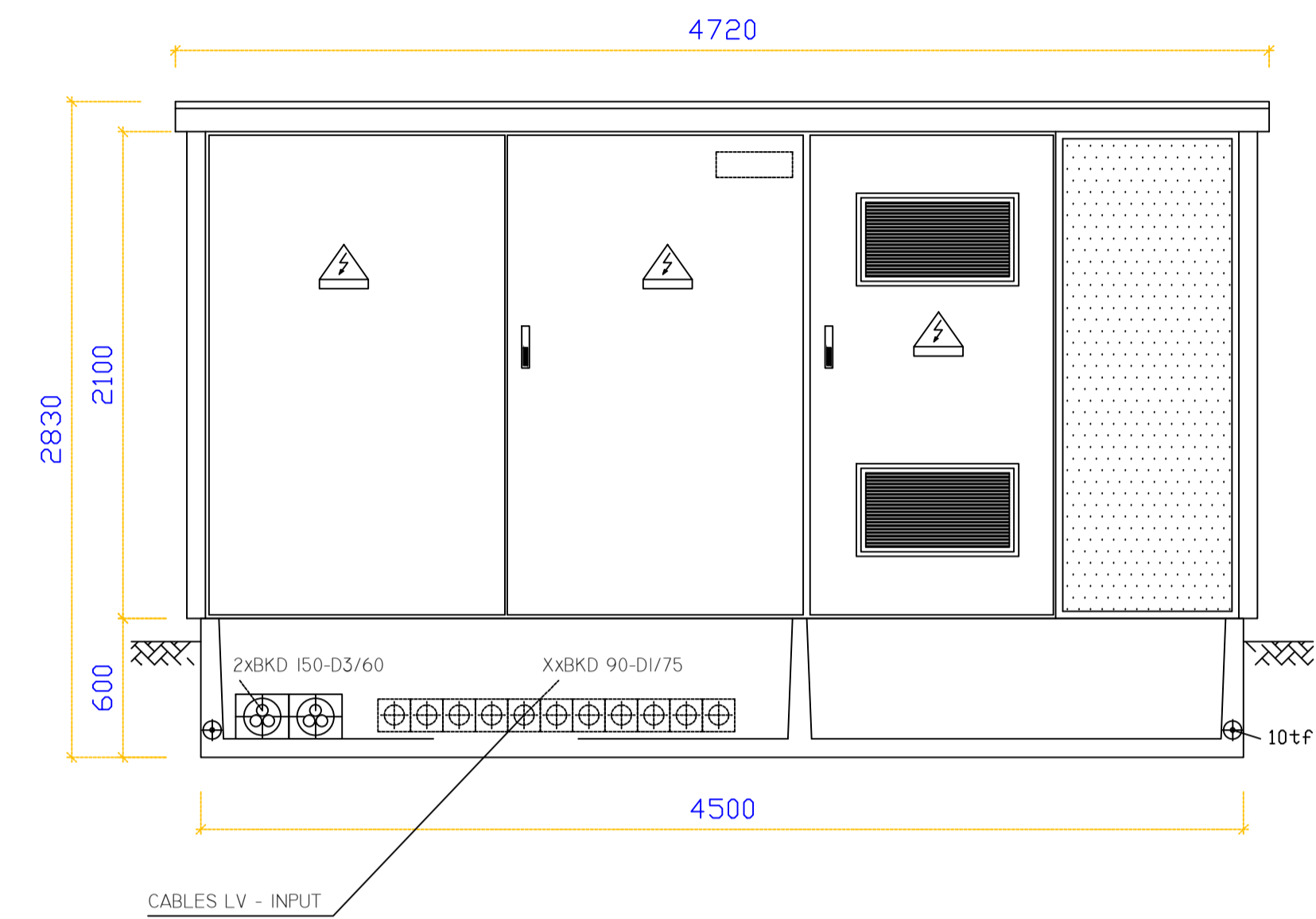
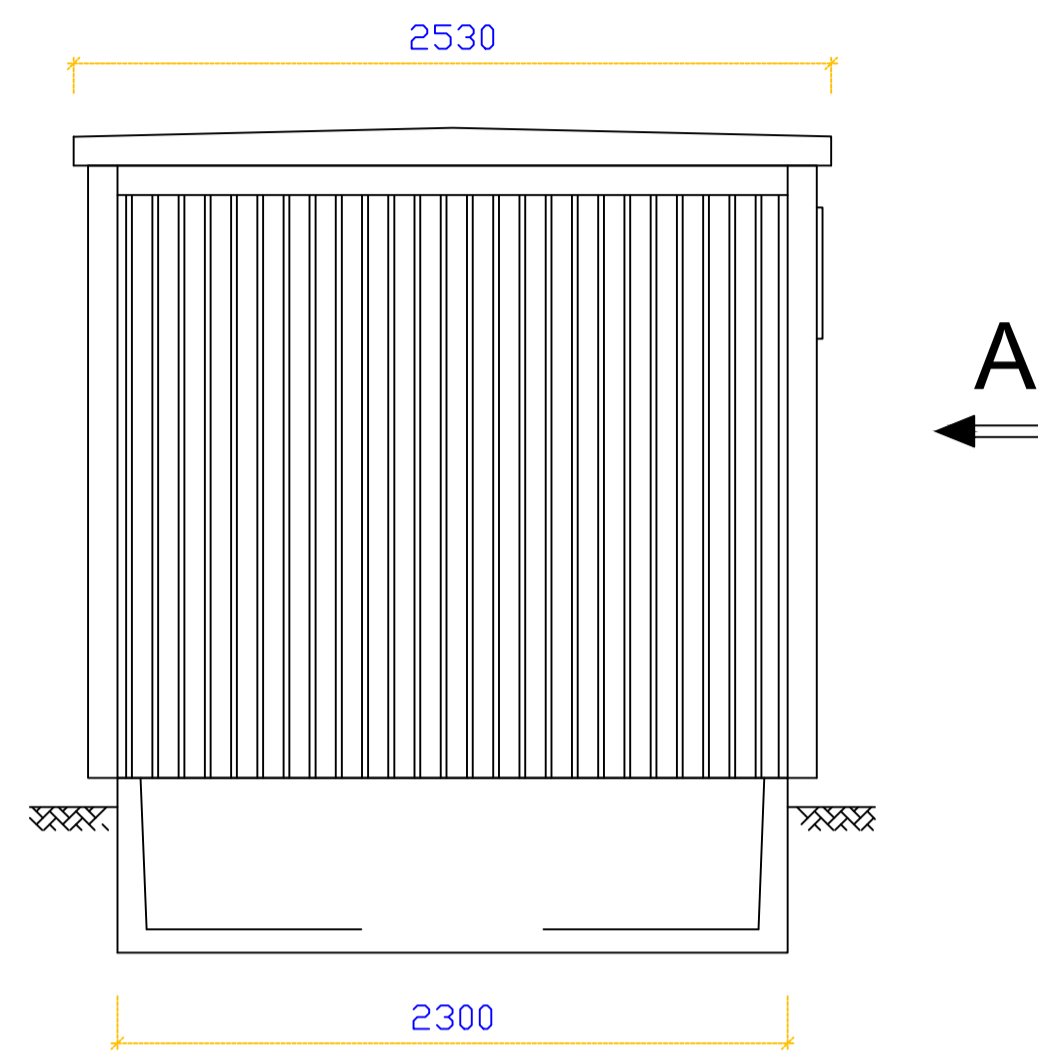


PV PLANT MICHAELSTONE

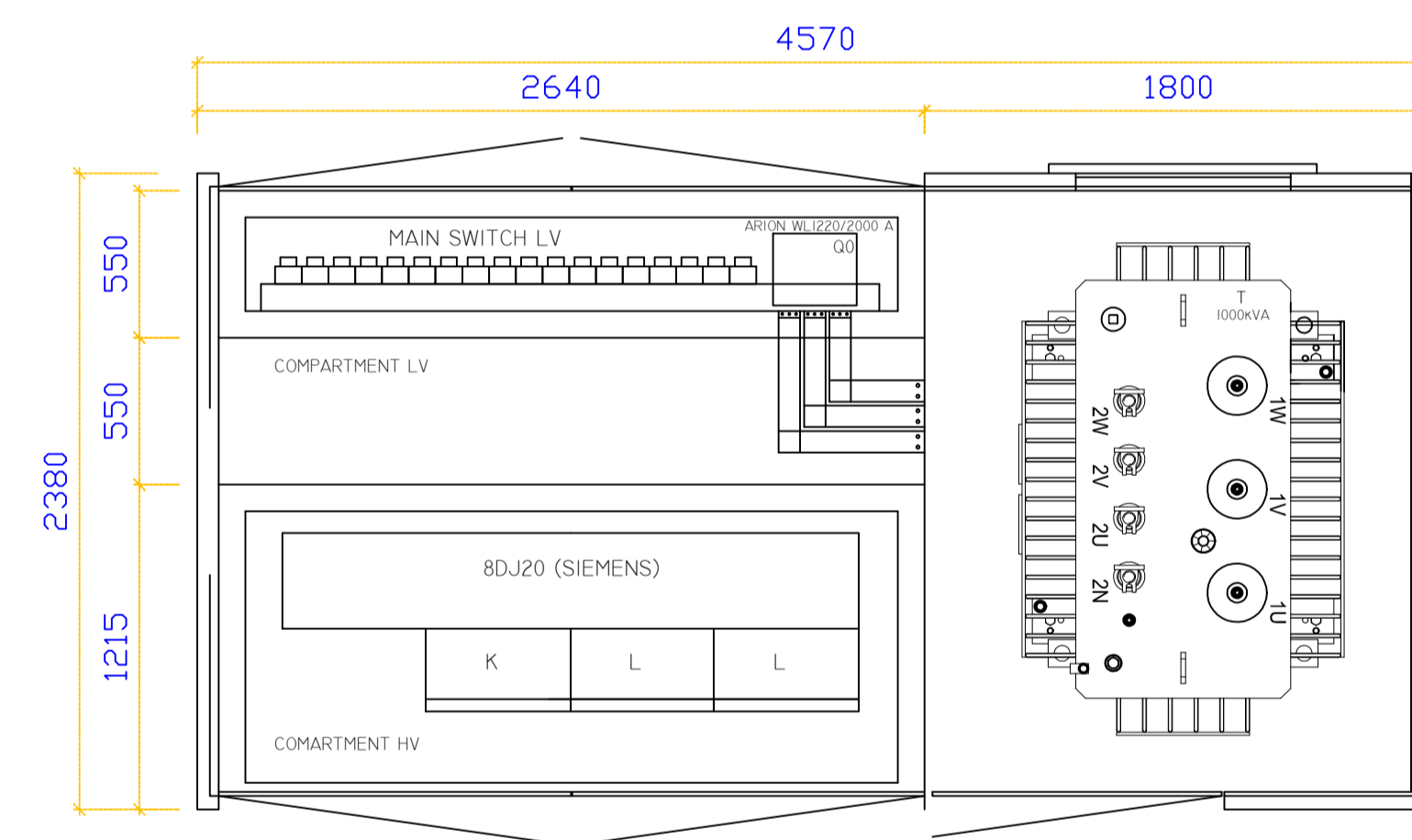
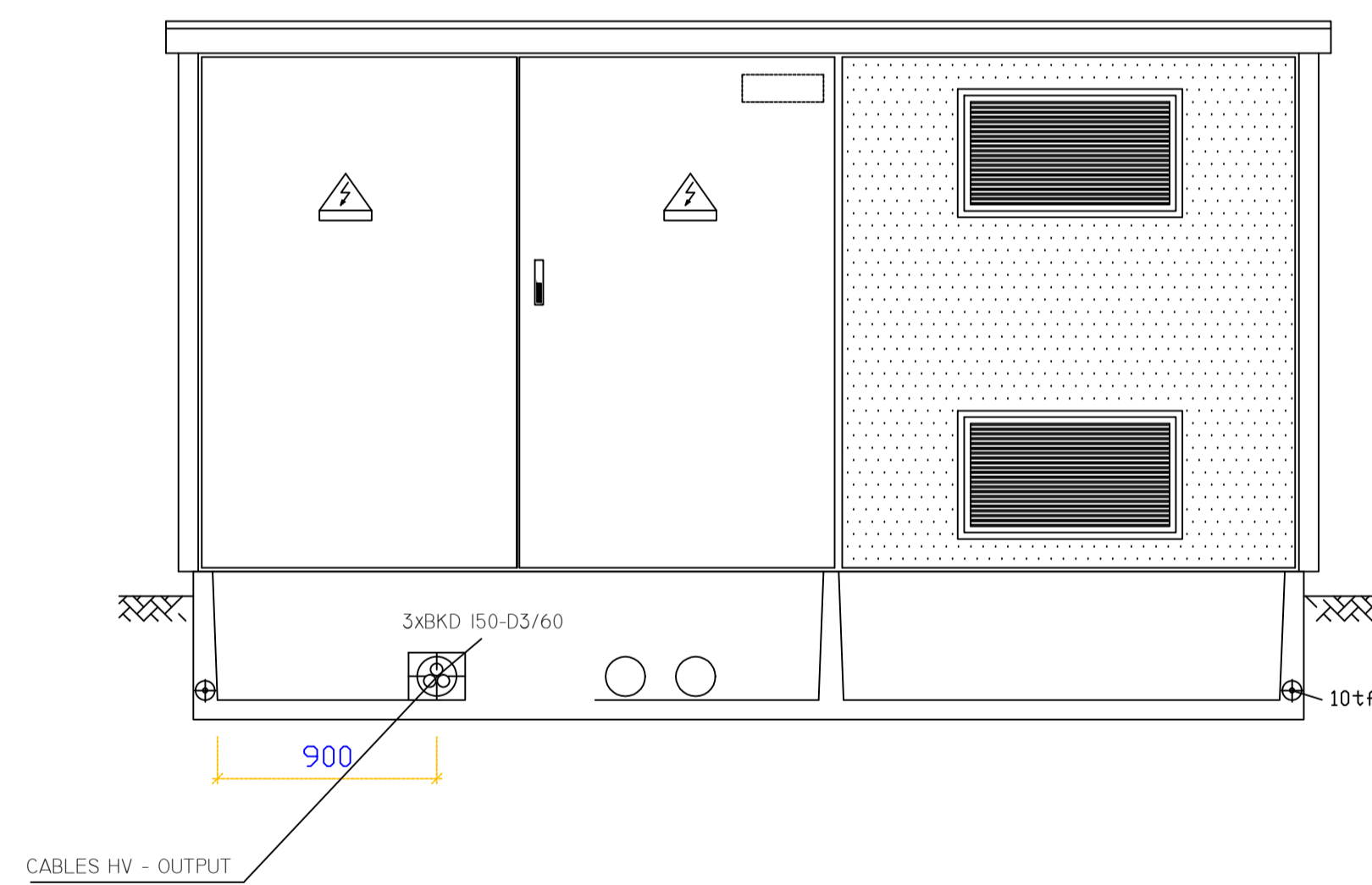


COMPANY	EKOTECHNIK Czech	SCALE	1:25
DESIGN	JAN MASEK	DATA	03/2014
VERIFIED	JAN MASEK	FORMAT	A01
		ANNEX	A01

CONSTRUCTION 33° var. 1100mm



Front DIN "A"



Manufacture: SIEMENS
 Pmax: 1000 kVA
 Number: 18
 Power losses: 6%
 Taps: 2x +/- 2,5%

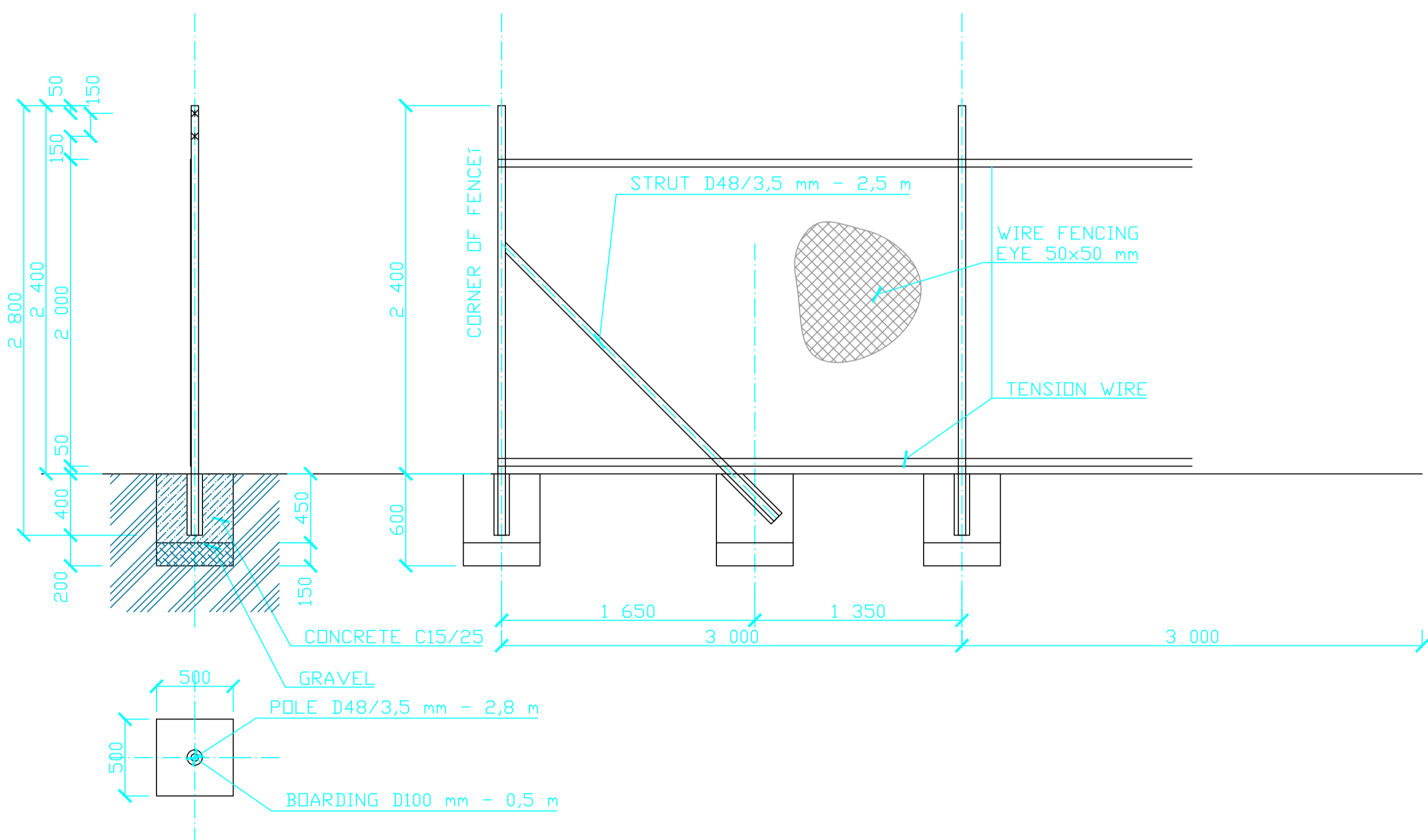
PV PLANT MICHAELSTONE



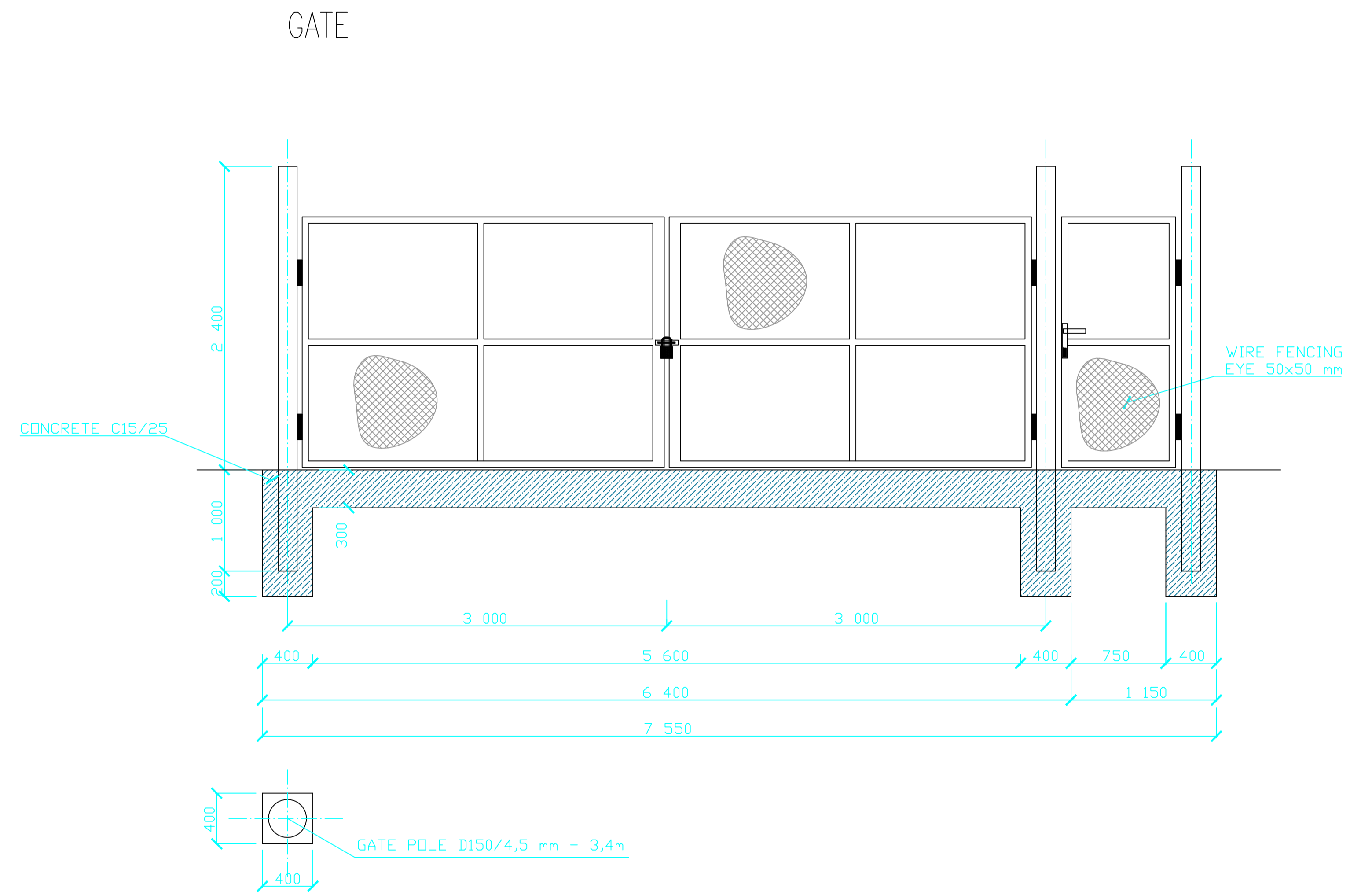
COMPANY	EKOTECHNIK Czech	SCALE	1:25
DESIGN	JAN MASEK	DATA	03/2014
VERIFIED	JAN MASEK	FORMAT	A01
		ANNEX	

TRANSFORMER TS1 - TS18

DETAIL OF CUT



FENCE



Material: Hot-dip galvanized steel, DIN EN ISO 1461
 Paint: RAL – DUPLEX SYSTEM

PV PLANT MICHAELSTONE			
COMPANY	EKOTECHNIK Czech	SCALE	1:50
DESIGN	JAN MASEK	DATA	02/2014
VERIFIED	JAN MASEK	FORMAT	A01
FENCE, GATE			1



Viewpoint Photograph 19: Broadstreet Common, Wentlooge Levels (June 2013)



Viewpoint Photograph 20: Glastonbury Terrace, Llanrumney (June 2013)



Viewpoint Photograph 21: Countisbury Avenue, St Mellons (June 2013)



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EEW Eco Energy World
Fairwater Farm,
Michaelston-y-Fedw
 Appraisal Photograph **LA.08-5**

March 2014

A082921 LA.08.cdr

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