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l'UNESCO
Maison de l'UNESCO

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Secteur de la culture
Centre du patrimoine mondial

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Madame l'Ambassadeur,

Je tiens à vous informer que l'ICOMOS International a terminé son étude au sujet du projet des parcs éoliens du Crêt-Meuron, Eole-de-Ruz et Quatre Bornes situés à proximité du bien du patrimoine mondial « **La Chaux-de-Fonds / Le Locle, urbanisme horloger** » dont vous trouverez le rapport en annexe.

Comme vous pourrez le lire, l'ICOMOS salue les efforts déployés par les autorités fédérales tout au long de l'élaboration du projet afin de réduire de manière significative les potentiels impacts visuels négatifs des parcs éoliens envisagés. L'ICOMOS considère, néanmoins, que le projet de construction de ces parcs éoliens, tel que révisé, engendrera tout de même un impact négatif bien qu'il soit concentré sur une zone délimitée du bien. En effet, l'ICOMOS considère que ladite proposition de projet fait atteindre au bien les limites en termes de modification visuelle du paysage après la construction des parcs éoliens. En conclusion, l'ICOMOS estime qu'aucun autre parc éolien ne pourra être construit sur ces sites sans menacer la relation de l'urbanisme horloger avec son environnement pastoral et forestier.

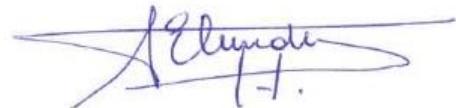
En outre, l'ICOMOS conseille que toute évaluation d'impact sur le patrimoine (EIP) qui pourrait devoir être réalisée à long terme envisage la possibilité de réduire davantage les impacts visuels négatifs des parcs éoliens tels qu'ils sont actuellement proposés et prenne comme référence, l'état initial du paysage, avant l'implantation de ces trois parcs éoliens.

Je vous serais reconnaissant de bien vouloir partager l'étude technique de l'ICOMOS avec vos autorités compétentes et de tenir le Centre du patrimoine mondial informé du suivi qui sera fait à ces recommandations.

Enfin, je souhaiterais préciser que l'UNESCO apprécie les efforts de ses États membres dans leur transition vers des énergies renouvelables. Dans un contexte de patrimoine mondial, il convient cependant de veiller à mettre en place des mesures appropriées pour assurer la protection de la valeur universelle exceptionnelle des biens. L'UNESCO est d'ailleurs engagé dans une réflexion avancée sur le sujet qui se matérialisera en un outil d'orientation pour les projets d'énergie renouvelable, et qui sera disponible en ligne avant la fin de l'année. En attendant, le recueil de pratiques inspirantes de quatre pays européens pour protéger l'intégrité visuelle des biens du patrimoine mondial dans le

cadre de transition énergétique, disponible à l'adresse <https://whc.unesco.org/fr/planification-energie-eolienne/>, vous sera certainement utile.

Je vous prie d'agréer, Madame l'Ambassadeur, l'assurance de ma haute considération.



Lazare Eloundou Assomo
Directeur

P.J. : Étude technique de l'ICOMOS International

cc. : Commission nationale suisse pour l'UNESCO
Points focaux nationaux pour la mise en œuvre de la Convention
ICOMOS

ICOMOS Technical Review

Property	La Chaux-de-Fonds / Le Locle, Watchmaking Town Planning
State Party	Switzerland
Property ID	1302
Date of Inscription	2009
Criteria	(iv)
Project	Wind farms of Crêt-Meuron, Eole-de-Ruz and Quatre Bornes

Background

Statement for Outstanding Universal Value

La Chaux-de-Fonds /Le Locle have been inscribed on the World Heritage List as “twin manufacturing-towns [which] constitute a unique urban and architectural ensemble, wholly dedicated to watchmaking from the 18th century until the present day. Watchmaking space and living space co-exist in an extremely close relationship. The rational, pragmatic, and open planning of the urban space has encouraged the sustainable development of this mono-industry, as a ‘manufacturing- town.’”

The Outstanding Universal Value therefore relates to the close interrelationship between the urban and architectural planned forms and its mono-function, watchmaking, and it is conveyed by the “permanence of the ordered and cumulative street plans of the first half of the 19th century and the continuity of the basic architectonic motifs of the built structure, based on a comprehensive typology from the end of the 18th century until today”.

The Project

The present ICOMOS Technical Review is in response to the Heritage Impact Assessment (HIA), which ICOMOS received from the State Party, via the World Heritage Centre, on 12 July 2022, regarding three windfarms in Crêt-Meuron, Eole-de-Ruz and Quatre Bornes. The Assessment is for a modification project that has reduced the number of windmills and improved their position at Eole-de-Ruz. The proposed windfarms are located outside of the World Heritage property and its buffer zone, closer to La Chaux-de-Fonds and almost not visible from Le Locle.

Analysis

The three windfarm projects are the outcome of a shift towards renewable energy that Switzerland has made since the Fukushima nuclear disaster, in 2011: a new energy strategy was adopted, and, on this basis, a new energy law was approved in 2016, in force since 2018. Consequently, the authorities have been researching new potentially eligible sites for exploitation of wind energy, among which are the three aforementioned sites.

The HIA has been carried out following the methodology of the “ICOMOS Guidance on Heritage Impact Assessment for Cultural World Heritage Properties” (2011) and has also referred to the Enhancing Our Heritage Toolkit.

A careful analysis of the attributes conveying the Outstanding Universal Value (OUV) has been made as a basis for the assessment of the impacts of the windfarm projects. This analysis highlights the importance of the landscape dimension for understanding and appreciating the significance of the two cities and the OUV of the property. The HIA also presents a careful assessment of the specific protection function of the buffer zone, which is to preserve the readability of the relationship between the ‘watchmaking urbanism’ with its

pastoral and forest environment and the insular character of these planned urban episodes within their natural surroundings.

A detailed analysis of the legislative and planning system is presented in the HIA, which facilitates an understanding of the process that the three windfarm projects have undergone. Dialogue with the Federal Office for Culture has led to the reorganization of the location of the windmills in the Eole-de-Ruz windfarm, the reduction of the number (from 10 to 7) and the extension of the windfarm (from 4km to 2km).

The connection with the transformation cabin, the electrical grid and between the windmills and windfarms will be underground in all cases and as much as possible existing road network will be used, although some new roads will be necessary in the Crêt-Meuron windfarm. Existing roads will need to be enlarged (up to 5m), hence there will be impacts during the period of construction of these roads and of the windfarms. However, following the completion of the windfarm construction, roads will be reduced to 3m of width.

The HIA explains that the windfarms are all planned along the second ridge from the valley bottom where the two cities are located. However, since this ridge is higher than the first, the windfarms will be visible.

The co-visibility analysis and the photo-simulation show that the Quatre Bornes windfarm will be partially or totally visible from different areas of the buffer zone of the property and only very limitedly from the west area of the property (La Chaux-de-Fonds). The HIA concludes that the impact is negligible.

In the case of the windfarm of Crêt-Meuron the co-visibility analysis and the photo-simulation show that the seven windmills will be visible from the western side of the property and from the buffer zone. However, the real co-visibility will be mitigated by the presence of the built environment in la Chaux-de-Fonds and by the vegetation from the buffer zone. The HIA concludes that the visual impact of the Crêt-Meuron windfarm will be slight. On the other hand, the co-visibility study, and the photo-simulation demonstrate that the windfarm of Eole-de-Ruz has a more significant visual impact from a delimited area of the property to the west, not only because all windmills will be visible but also the Crêt-Meuron windfarm will also be visible, causing a cumulation of visual impacts. The HIA considers the impact to be moderate because the windfarms will be visible only from a delimited portion of the property but not at all from most of it.

Overall, the impact of the three windfarms is considered moderate regarding the visual impact of the windmills, feeble with regard to the illumination and the construction/ adaptation of the road network. The impact will be circumscribed to a delimited area to the west of la Chaux de Fonds, from where 14 out of 24 windmills will be visible; however, it will be mitigated by the presence of other buildings and by the vegetation.

Mitigation measures have been identified. They include the restoration of the modified road network at the end of the construction phase, the burying of 13kms of currently existing aerial electrical cables and the integration of transformation cabins into the rural built environment. Furthermore, as a compensation measure, it is planned to bury an existing high voltage electrical line which cuts into two parts the buffer zone. This is visible from various locations within La Chaux-de-Fonds, hence its burial would improve the current situation. The design for the burial of the electric line is already in an advanced stage.

The HIA concludes that the construction of the three windfarms modifies the ridge landscape around the property which is today relatively free from construction. However, regarding the impact on the property itself, the HIA considers that the Quatre Bornes windfarm will be almost non-visible from the property, whilst the other two windfarms will be visible from a delimited area to the west of La Chaux-de-Fonds and much less from Le Locle. The initial project proposal has been downsized in number of windmills and extension of the area occupied by the windfarm; hence impacts have been reduced. Furthermore, compensation measures have been included, for example, the burial of the existing high-voltage line crossing the buffer zone. The State Party concludes that the modifications to the project and the compensation measures will ensure that the OUV of the property is not threatened.

ICOMOS considers that the information provided in the report is adequate and sufficiently detailed to assess the impacts of the windfarm projects and of the process carried out by the State Party in its evaluation of the proposed projects. ICOMOS observes that the whole impact assessment process for the windfarms has been robust and sound and has led to the progressive refinement of the projects to remove, reduce, and mitigate the residual adverse visual impacts of the planned windfarms.

Conclusions

ICOMOS acknowledges the efforts deployed by the Federal authorities throughout the design and authorization process to reduce significantly the potential negative visual impacts of the windfarms as initially planned. However, it also notes that the modified planned windfarm of Eole-de-Ruz still have a negative visual impact, cumulated with the one in Crêt-Meuron, even if concentrated in a delimited area of La Chaux-de-Fonds.

ICOMOS considers that the proposals for the three above-mentioned windfarms have saturated the limits of acceptable change in terms of modification of the views from the property and towards the property and its visual relationship with its wider setting as it will be modified after the construction of the windfarms. Hence, ICOMOS considers that no additional windmills or windfarms can be built at these sites without threatening the relationship of the watchmaking urbanism with its pastoral and forest environment, which contributes greatly to the understanding of the specific socio-historic conditions under which the two cities of La Chaux-de-Fonds and Le Locle have developed.

Furthermore, since these three windfarms are proposed in an area relatively uncompromised by large-scale infrastructures, it is advised that any Heritage Impact Assessment (HIA) that may need to be done in the long-term future (for instance if repowering will be needed of the currently proposed windfarms) should consider the possibility of further reducing the negative visual impacts of the windfarms as currently proposed and take as a reference for the assessment, the initial state of the landscape, before the introduction of these three windfarms.

Any further proposals for windfarms in the surroundings of the property should be carefully considered in order to avoid its visibility from any area of the property and co-visibility of the property and the infrastructure from the buffer zone.

Finally, ICOMOS advises the State Party to ensure the close monitoring of the implementation of the projects and of the agreed mitigation and compensation measures. ICOMOS further advises that project visualizations be tested against systematic photographic campaigns taken from the same spots and in the same, as well as different, atmospheric conditions, to verify whether the visualisations included within the HIA report can be considered accurate simulations of the real conditions, otherwise further refinement of this widespread methodology may be needed to ensure the HIA report is controllable and reliable. If systematically carried out, this monitoring can contribute to defining criteria for photo-simulation so as to improve the reliability, controllability, and accuracy of this methodology as a tool to assess visual impacts of this type of infrastructure.

ICOMOS remains at the disposal of the State Party for further clarification on the above or assistance as required.