



Editorial – International Journal of Sustainable Energy Planning and Management Vol 14

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ABSTRACT

This editorial introduces the 14th volume of the International Journal of Sustainable Energy Planning and Management, which addresses transition pathways for Sweden's transportation sector, and for the West African power system towards low-carbon. Also, industrial symbiosis with the aim of providing district heating in Aalborg and prerequisites for energy transitions are addressed.

Keywords

Transportation;
Industrial symbiosis;
Low-carbon pathways;
Energy transition;

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1. Contents

This editorial introduces the 14th volume of the International Journal of Sustainable Energy Planning and Management. In [1], Bramstoft & Skytte investigate pathways for transitioning Sweden's transportation system to renewable energy. They create two alternatives based on a) a high degree of electrification and b) based on biofuels. Using the energy systems analyses model STEAM, the authors investigate the effects from an overall energy systems approach, finding that the electric vehicle scenario presents the most cost-optimal solution with costs lower than a reference scenario whereas the bio scenario results in costs marginally higher than the reference scenario.

Momodu [2] investigate the trade-off between economic development and low-carbon pathways in West Africa using the *Electricity Planning-Low Carbon Development* model. The cost of establishing

a low-carbon development pathway for West Africa is estimated at US\$ 1.54 trillion over the coming 50 years.

Sacchi & Ramsheva [3] investigate industrial symbiosis in Aalborg, Denmark, exemplified by the uptake of excess heat from industry to be delivered to the district heating network. They find amongst others, that additional excess heat may be harvested and used in district heating. In the most ambitious scenario, the carbon footprint by is reduced by 90% – albeit at the same time also resulting in 41% increased customer expenditures.

In [4], Selvakkuramen & Ahlgren present a study of energy transitions described in the existing academic literature. Analysing a total of 36 articles – what they describe as 18 core and 18 peripheral papers – the authors apply Strategic Niche Management theory and Multi-Level Perspective to analyse the transitions. They find, however, that the framework does not fully describe the transitions.

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References

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