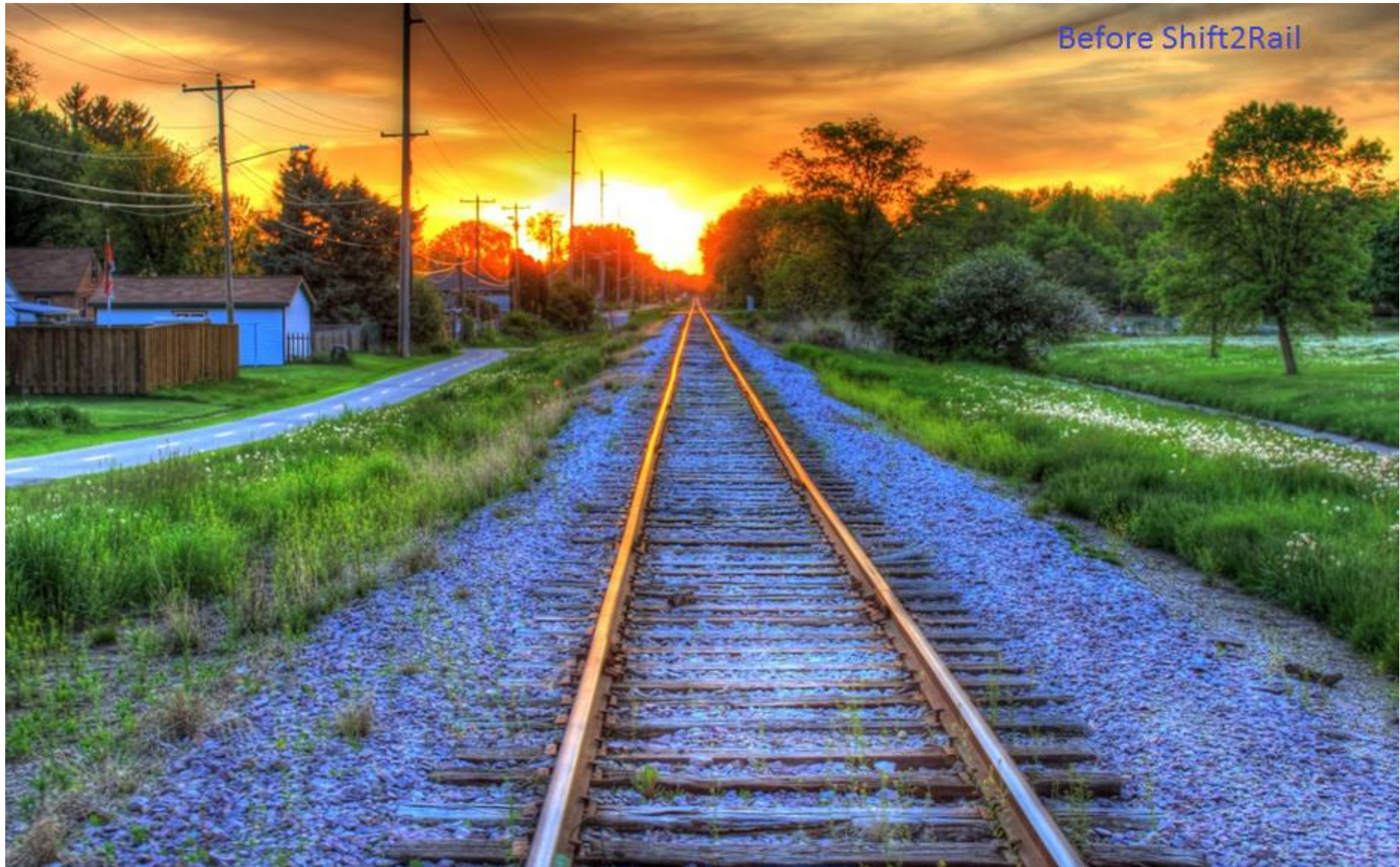




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Before Shift2Rail



- Project proposal title: **‘Energy from Rail Tracks’**
- Topic to be addressed: **1.3.3 Innovation Programme 3 (IP3): Cost Efficient and Reliable High Capacity Infrastructure** and **4.2.6 S2R-OC-IP3-01-2019: Future traction power supply for railways and public transport.**
- Project description (brief):
  - ❖ Wooden and Concrete Cross Ties replaced by Composite Ties produced from landfill plastics and wood flour waste. Cross Ties are Reusable and Recyclable Profiles.  
**Benefits:** Composite Cross Ties have **Long Life**, **Increased Physical and Mechanical properties** compared to both Concrete and Wooden Ties. Composite Cross Ties are produced from **non-recyclable** plastics. **TRL9**.
  - ❖ **Flexible Photovoltaic solar cells** laminated to plastics composite boards and fixed along the way of **Train Roads**. Profiles designed and applied onto train carriages **roof tops**.  
**Benefits:** **Clean Energy**. **Imagine:** Train Rail Roads **paved** with Photovoltaic solar cells from Brussels to Istanbul.
  - ❖ Cost effective **Tunnel & Bridge** solutions with Plastic Composites Profiles  
**Benefits:** Long Life, less maintenance and **save money**
  - ❖ **Grid Interaction** between Railway power supply system and Public grids
- Current consortium (if any): Solar cells, batteries and system application producers
- Profile of the partners sought (type, skills, role, etc.): Engineering, Producers and Constructors





PV Panel Carrier Board

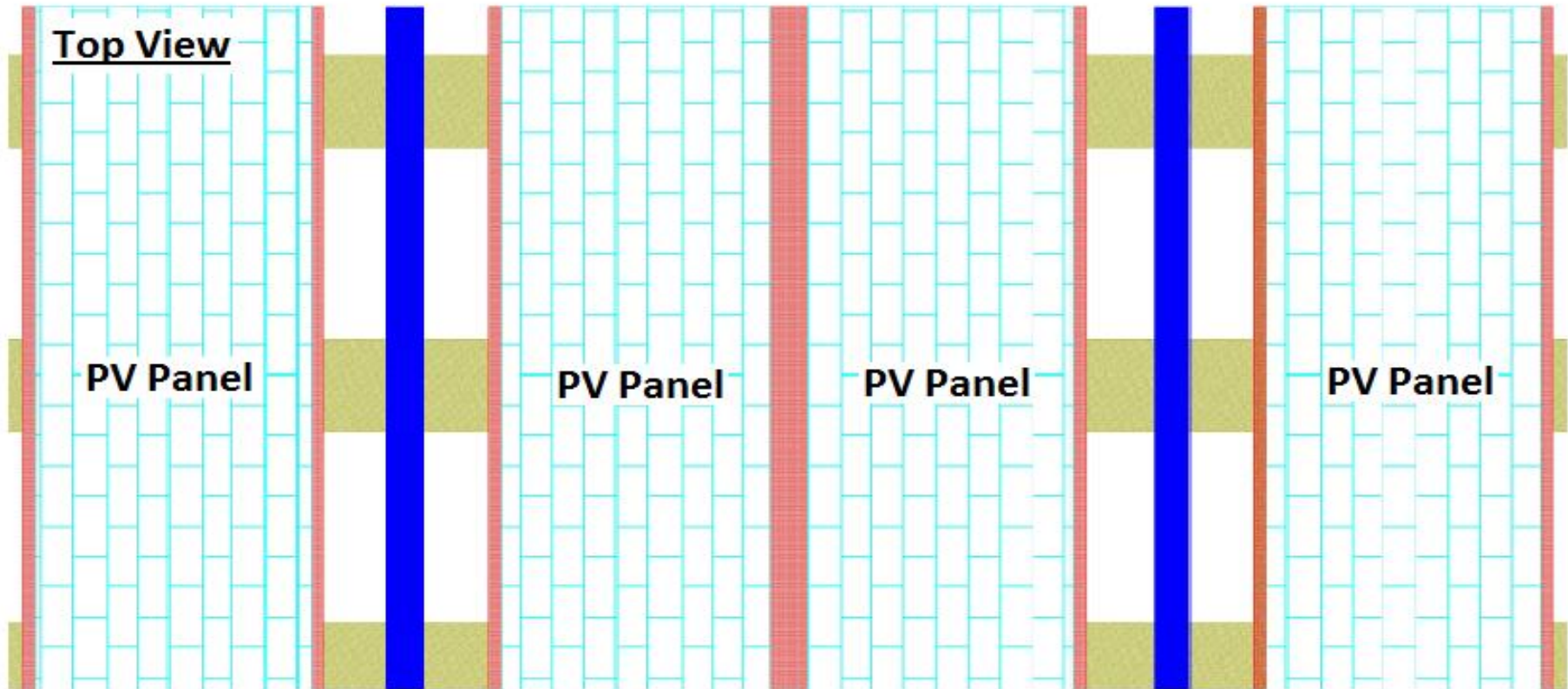
PV Panel Support

Rail

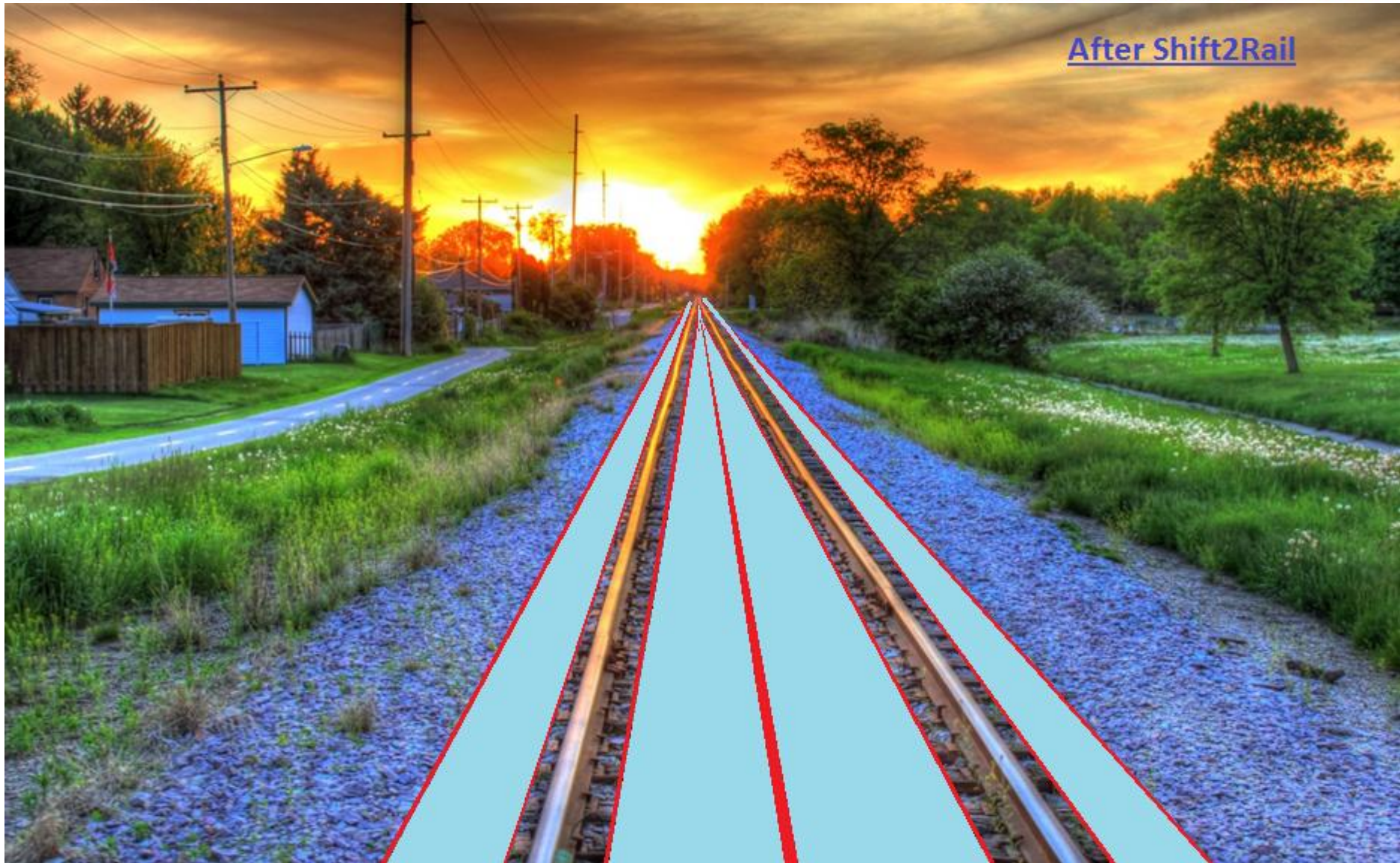
PV Panel



Top View







After Shift2Rail