

# CLIMATE SOLUTIONS PORTFOLIO

## # 12: Advanced Renewable Tariff (“SOC Phase 2”)

### Proposed Measure

The government should adopt the Advanced Renewable Tariff (“ART,” a.k.a. “Feed Law”) as a strategic instrument to ensure the adoption of appropriate renewable electricity generation resources. ART might eventually replace the tender process. Initially it would supplement tendering by targeting specific appropriate technologies and by supporting smaller-scale, more localized projects. An independent expert panel sets technology-specific prices. The price is guaranteed for 15 - 20 years, to return capital costs. The price is adjusted periodically to ensure the number of projects coming on line reflects policy aims.

The government should prepare a “Phase 2” to its current SOC program. This should be integrated with BC Hydro’s net metering system and should be extended to all areas of BC. Specific technology targets:

1. Photovoltaic generation at the residential (3 kW) and small commercial (10 – 100 kW) levels, perhaps including IPP commercial generation. Solar energy can be installed right at the loads.
2. Solar hot water, aimed at residences, commercial buildings and swimming pools. Solar power is a very efficient way to heat water. The main barrier is initial costs. Policy can help this.
3. Small and medium scale wind energy close to load centres. BC’s best wind resources may be in remote areas, but there should also be good opportunities near load centres. Wind is generally grid-synergistic, with high generation in the winter months, when loads are high and hydro reservoirs are relatively low.
4. Ground source energy (with heat pump technology). This can be used in residences and commercial buildings, right at the loads. Appropriate heat metering would need to be developed.
5. Tidal and wave power are pre-commercial technologies. BC has large identified resources.

### Benefits and Issues

Markets do not adequately signal key benefits of sustainable energy: (1) greenhouse-gas-free generation (already addressed in the government’s Energy Plan); (2) technological diversity and grid synergies; (3) and local generation. Policy-driven technology choices are needed to ensure that society makes the right energy choices in the short time-frame that we have to address climate crisis.

Regarding technical diversity and grid synergies, BC Hydro’s tender process and the proposed Standing Offer Contract (“SOC”) will likely attract disproportionate numbers of hydro-electric projects, because they are relatively cheap. This could retard the development of other resources, such as wind and sea energy, that are also needed to solve the energy equation. As well, too many hydro projects will cause grid inefficiencies because they peak in the season when there is least need for their power.

Local, distributed generation can be encouraged through ARTs, reducing line losses and creating a generally more robust system.

ARTs have been successfully deployed to “kick-start” renewable energy industries around the world. Denmark, Germany and Spain have developed major wind industries; Germany and Japan have become leaders in solar photovoltaic generation. While reducing dependence on fossil fuels, these countries have generated employment and diversified their economies. BC has a significant solar industry and potential to develop other renewable energy industries.

### Execution

MEMPR would develop technology-specific goals. Government would create the independent expert panel. Revisions to the Utilities Commission Act would be required to co-ordinate policy treatment of the ART and to extend it to other utilities in BC.