Dear Director Hatfield, Ben Barrington,

When I tried to introduce 'Quality Characteristics' of power generation at a SB-99 meeting, I was told that subject belonged to the SB-191 State Energy Strategy. So I would like to introduce this subject prior to creation of the first draft Energy Plan.

Although several forms of generation with some quality characteristics were generally addressed during the April 21 meeting, only renewable generation was included, only a few characteristics were discussed, and we didn't prioritize these characteristics or compare them with those of conventional power generation.

After much study of various forms of power generation over the past year, I believe it important for NH power generation quality characteristics to be thoroughly compared for each source, and then these power sources should be ranked based on these characteristics as follows (Most important at top of list):

Positives (Most Desirable Sources of Power Generation):

- Safe
- Reliable/Dependable
- Low cost of power generated
- Dispatchable
- Renewable
- Low fossil fuel consumption
- Low emissions
- Small footprint per MW
- Low health issues (noise, etc)
- Low visibility
- Sited close to load
- High availability/efficiency during high load periods

Negatives (Least Desirable Sources of Power Generation):

- Lower safety
- Unreliable/undependable (unpredictably intermittent)
- High cost of power generated
- Not dispatchable
- Not renewable
- High fossil fuel consumption
- High emissions
- Large area needed per MW
- Many health issues (noise, etc)
- High visibility
- Sited far from load
- Lower availability/efficiency during high load periods

Intermittent sources can improve ranking with:

- Associated energy storage 'partner' for 'balancing', reliability, dispatchability
- Associated energy source 'partner' for 'balancing' reliability, dispatchability
- The intermittent source and 'partner' are then ranked as a pair for above evaluations

I'm sure more categories could be added.

In addition, I believe two more topics should be addressed:

- Conservation is far better and more cost effective than adding more sources of power.
- Siting more power generation, and transmission, in NH should require local 'host' community agreement, especially since NH already generates ~ twice the power it uses.

Thank you for consideration of these important issues, and please contact me if needed for more information.

Joe Wilkas
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