Counterflow
By Steve Huntoon

New York's Surreal New Deal

By Steve Huntoon

Heard much about New York's Reforming the Energy Vision (REV) lately? No, I didn't think so. Remember how REV was supposed to empower customers and reduce their costs with all kinds of innovations in the traditional utility model? It was the most hyped regulatory initiative since the California restructuring some 20 years ago.

But as I wrote back in 2016: "Acronyms and visions abound, but there is no clear roadmap or even a clear destination."[1]

How prophetic. Other than squandering customer dollars on a few uneconomic demonstration projects,[2] REV as a customer-empowerment revolution that reduces customer costs is dead. RIP REV.

REV Absorbed into NY's Green New Deal

Instead, REV has essentially been absorbed into New York's own Green New Deal. Its Green New Deal has nothing to do with customer empowerment, reducing customer costs or transforming the traditional utility model.

Instead of transforming the traditional utility model, that model will be the vehicle for imposing billions of dollars in costs on customers/taxpayers to pay for top-down, centrally planned projects.

NY's Green New Deal is Surreal

Exhibit A is the planned enormous waste of customer/taxpayer dollars on offshore wind when the same subsidy dollars could procure many times that amount of onshore wind. I've written about that sad fact before.[3]

Exhibit B is the politically driven closure of the economic Indian Point nuclear plant and effective replacement of that emission-free generation with an equivalent amount of offshore wind (4,000 MW at about a 50% capacity factor) at a subsidy cost of about $830 million annually.[4] In other words, replacing Indian Point with offshore wind will squander $830 million of New Yorkers' money every year.

And when Indian Point is closed in 2020-21, with no telling when New York actually will have 4,000 MW of replacement offshore wind in service,[5] we know that fossil generation will be replacing Indian Point generation, and New York's carbon emissions will be going up, and even more so if New York succeeds in keeping new gas pipelines from supplanting coal generation. Don't expect data and reporting on all this.

Indian Point nuclear plant | *Entergy*

Exhibit C is the subsidizing of other nuclear plants in New York to stay open. Yes, it's the theatre of the absurd when the economic nuclear plant is forced to close, with equivalent wind costing $830 million in subsidies and the allegedly uneconomic nuclear plants getting $500 million in subsidies to stay open.[6] I think I know how Alice felt in Wonderland.

Exhibit D is the planned enormous waste of customer/taxpayer dollars on batteries. Yes, I've written about batteries several times.[7] But, sorry, New York seems to have a particularly wasteful approach to subsidizing batteries: Simply subsidize batteries.

New York's first battery project is the Key Capture Energy project, which New York claims "will help reduce greenhouse gas emissions. The 20-MW energy storage system supports Gov. Andrew M. Cuomo's Green New Deal." The state's press release drones on with self-congratulatory quotes from just about everybody and lots of promotion of New York's Green New Deal.[8]

Now here's the thing: This battery project isn't

Counterflow

By Steve Huntoon

going to reduce carbon emissions one iota. This battery provides regulation service and moves off its set point at 50% of capacity only as signaled.[9] The net effect on generation is trivial with no way of knowing whether carbon emissions are trivially increased or trivially decreased.

On to the much-ballyhooed 300-MW storage procurement by Consolidated Edison. The request for proposals is of course long and complex, but it asks *nothing about actually reducing carbon emissions*.[10] It's storage for the sake of storage.

On to the New York State Energy Research and Development Authority implementation plan for storage, with requirements and metrics for bulk storage, *none of which involve actually reducing carbon emissions*.[11] More storage for the sake of storage.

Last but not least is the idea of replacing peaker plants with batteries. It ought to be obvious that replacing seldom-run peaker plants with batteries won't materially reduce carbon emissions because seldom-run peaker plants seldom produce carbon emissions. And even if they did run more it would beg the (unanswered) question of what would be used to charge the batteries.

And here's a gut-check conclusion of New York Public Service Commission staff's study of the subject that nobody seems to appreciate: six-hour batteries could provide equivalent generation for only 275 MW of the state's existing peaker fleet of 4,500 MW.[12] Let's think about this. The type of generation that batteries ought to be able to replace is peakers, but when operational analysis is done, it turns out that only 6% of existing peakers could be replaced by batteries.

So what's the peaker replacement reality? Little carbon emission benefit and little operational feasibility.

Nota Bene

All this is fair warning to everyone everywhere when politicians pull numbers out of thin air — like New York's 9,000 MW of offshore wind and 3,000 MW of storage — and tell the political appointees to just do it.

The politicians get the applause lines, and the customers get the shaft. ■

[1] http://energy-counsel.com/docs/You-Say-You-Want-a-REVolution-Fortnightly-February2016.pdf.

[2] As I said about the utility residential solar programs: "REV demonstration projects at least demonstrate one thing: Utilities shouldn't be running residential solar programs."

[3] http://energy-counsel.com/docs/Offshore-Wind-Edifice-Complex.pdf. By the way, there are more than 5,000 MW of onshore wind in NYISO's interconnection queue, https://www.nyiso.com/documents/20142/1407078/NYISO-Interconnection-Queue.xlsx/c0fe9a9b-7011-ab05-0f51-fd4ad0ef33f0 (sorting on wind for total of 18,976 MW and subtracting 13,632 MW of offshore wind).

[4] Indian Point's 2,144 MW capacity times 90% capacity factor is 16.9 million MWh. https://www.eia.gov/todayinenergy/detail.php?id=29772. New York has not disclosed subsidy information, but if we use New Jersey's $98.10/MWh price as a proxy (conservative given New York's union labor requirement) https://www.scientificamerican.com/article/major-u-s-offshore-wind-projects-still-face-hurdles/, and subtract the $49/MWh energy price in the Long Island zone in 2018, https://www.nyiso.com/documents/20142/2223763/2018-State-of-the-Market-Report.pdf/b5bd2213-9fe2-b0e7-a422-d4071b3d014b (pdf page 8), then the annual subsidy cost is 16.9 million MWh times $49.10/MWh, which equals $830 million.

[5] The first 1,700 MW have an (optimistic) in-service date in 2024. https://www.nationalfisherman.com/mid-atlantic/new-york-signs-1-7-gigawatt-deal-for-offshore-wind-energy/.

[6] https://www.nytimes.com/2016/08/02/nyregion/new-york-state-aiding-nuclear-plants-with-millions-in-subsidies.html.

[7] http://energy-counsel.com/docs/Cue-the-Pixie-Dust.pdf; http://energy-counsel.com/docs/Grid-Batteries-Kool-Aid-Once-More-with-Feeling-RTO-Insider-12-5-17.pdf; http://energy-counsel.com/docs/Battery-Storage-Drinking-the-Electric-Kool-Aid-Fortnightly-January-2016.pdf.

[8] https://www.nyserda.ny.gov/About/Newsroom/2019-Announcements/2019-09-12-NYSERDA-Announces-Completion-of-Largest-Battery-Installation-in-the-State.

[9] https://dailygazette.com/article/2018/07/05/20-megawatt-battery-facility-planned-in-stillwater. ("'We'll leave it probably half-charged,' [Chief Development Officer Dan] Fitzgerald said, so that it can go either way.").

[10] https://www.coned.com/-/media/files/coned/documents/business-partners/business-opportunities/bulk-energy-storage/bulk-storage-request-for-proposals.pdf?la=en.

[11] http://documents.dps.ny.gov/public/MatterManagement/MatterFilingItem.aspx?FilingSeq=230734&MatterSeq=55960.

[12] The PSC staff study is here, http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={2F0A202D-CAB9-4961-96F3-56AEA67C6052} (pdf page 24). Four-hour batteries could replace 83 MW, and eight-hour batteries could replace 509 MW. Of course, eight-hour batteries cost twice as much as four-hour batteries. Adding solar to batteries could replace more megawatts, but of course that adds even more costs.