

**New York Geothermal Energy Orginaziation (NY-GEO)
Initial Comments and Concerns of the
Draft Generic Environmental Impact Statement (DGEIS)
in regard to CASE 14-M-0101 - Reforming theEnergy Vision (REV)
and CASE 14-M-0094 - Clean Energy Fund (CEF)**

The New York Geothermal Energy Organization (NY-GEO) is a consortium of geothermal heat pump (GHP) manufacturers, engineers, geologists, architects, distributors, dealers, installers, designers, water well drillers and other professionals, individuals and interest parties which was formed in July 2014 with the Mission Statement “*To promote the mass adoption of Geothermal Heat Pumps so New Yorkers can enjoy their economic and environmental benefits*” guiding NY-GEO’s existence as well as our legislative and market development efforts.

As such NY-GEO offers the acumen and experience of its members and staff to address and comment upon the issues contained within the Draft Generic Environmental Impact Statement (DGEIS) from the viewpoint of professionals actually engaged in the manufacture, distribution, design, sale and installation of GHP technology within the state of New York so as to advance the adoption of GHPs within the REV and CEF processes. In our review of the DGEIS document NY-GEO agrees that this is definitely, at least within the scope of GHP’s presence within the report, a draft.

Geothermal heat exchange and geothermal heat pumps, while in existence and in business since the late 1940’s, is still perhaps considered a nascent technology by some as geothermal heat exchange has not received equal levels of interest and financial support enjoyed but other, and often similar, Renewable Energy (RE) and Energy Efficiency (EE) technologies. Hence the capital required to achieve the programs and protocols required to bring GHPs to mass adoption has been a major limiting factor in the growth of our industry to date.

For example, solar photovoltaic technology, which has similarities with GHP technology in terms of energy source and the viability to meet program goals, has benefitted from state and federal incentives and third party investor interest allowing significant advancements in both the base product and in those product’s deployment. NY-GEO feels that incorporation of GHP technology into such similar programs will produce equal results in improving energy utilization and economic benefits at all levels, without creating and in fact reducing, environmental impacts at all levels.

But these realizations have not developed as of yet for GHPs and as such the levels of understanding of the advantages of GHP technology is often underdeveloped, misunderstood or inaccurate. NY-GEO now hopes to develop a dialogue with the preparers of this report, Industrial Economics, Inc. and Optimal Energy, and then with both the Department of Public Service (DPS) and the Public Service Commission (PSC) to bring to bear those issues outlined within the DGEIS that NY-GEO deems problematic

in an effort to bring the clarity, experience and vision of the NY-GEO GHP community to resolve these issues and to finalize the net end result of the DGEIS process.

To initiate this process we suggest to start by examining the chart of the conclusions of the initial DGEIS review as was presented in both the DGEIS’s Executive Summary and again in Chapter 5 titled the *Summary Of Environmental Impacts By Technology And Resource Area* and is reproduced here below:

SUMMARY OF ENVIRONMENTAL IMPACTS BY TECHNOLOGY AND RESOURCE AREA

RESOURCE AREA	OPTIMIZING ENERGY CONSUMPTION						CARBON FREE AND LOW-CARBON ENERGY RESOURCES									
	ENERGY EFFICIENCY	DEMAND RESPONSE	PEV/VZG	ENERGY STORAGE	SMART GRID	RATE STRUCTURES	CONSTRUCTION PROCESS	CHP	SOLAR	FUEL CELL	WIND	HYDROELECTRIC	BIOMASS	BIOGAS	GEOTHERMAL	OCEAN ENERGY
Land Use and Biological Resources				•												
Water Use																
Water Quality				•												
Hazardous Air Emissions																
Greenhouse Gas Emissions																
Air Quality																
Cultural, Aesthetic Resources**				•												
Transportation																
Waste Management																
Noise and Odor Pollution																
Public Health																

KEY:

Assessment of impact direction:

- Negative impact
- ◻ Potential negative impact
- ◻ Direction uncertain
- ◻ No impact
- ◻ Positive impact
- ◻ Potential positive impact
- ◻ No impact

Project phase of impact

- ◻ Impacts occur due to operation, as well as other project phases
- ◻ Impacts occur due to construction only
- ◻ Impacts occur during product lifecycle only
- ◻ No impact

Notes:

^ In some cases, such as wind, solar, and biogas, these impact designations refer to impacts from both distributed and utility-scale resources. The nature of impacts generated from utility-scale may differ from distributed applications; such variability is reflected in the assigned designation with more detail provided in Sections 5.2 and 5.3.

* Identifies impact applicable only to PHS. In other words, impact is not applicable to CAES, batteries or flywheels.

** Most impacts to cultural and aesthetic resources relate to decisions about siting, and are therefore project specific.

As there is no particular mention of geothermal electrical energy production (or “hot-rocks geothermal”) we consider the comments on the chart above to have been made in reference to GHPs or geothermal heat pumps. To that end the following items from the above chart are deemed that geothermal is considered to have a “potentially negative impact” including:

1. Land Use and Biological Resources,
2. Water Use,
3. Water Quality,
4. Hazardous Air Emissions,
5. Greenhouse Gas Emissions,
6. Air Quality, and

7. Public Health
and as such need to be reviewed.

And, in order for NY-GEO to address its responses to these conclusions, NY-GEO needs to understand the basis utilized in the construction of data used to formulate this chart, for example:

- What were the specific guidelines used to place any particular technology within a category which categories range from “*positive impact*” to “*negative impact*”?
- What were the sources of information utilized to obtain the data leading to these results?
- How were these net environmental impacts considered and tallied?
- Again for the sake of example, for GHPs to achieve a *potential negative impact* for Air Quality, what were:
 - the settings in which these findings were made,
 - the ranges for, and
 - the sums of the pollutants resultant used to achieve this *potential negative impact* rating?
- What were the ranges for, the levels of, and for the frequency of incidence, that were perhaps deemed to range from “*acceptable*” to “*unacceptable*” used for this, again for example, GHP’s Air Quality *potential negative impact*?
- What level of GHP utilization within the state was built into the models used to rate GHPs and, and in fact, other technologies so analyzed?
- Who were the industry-specific professionals or experts consulted in the assemblage of the information utilized for this chart?
- Etc., etc.
- Or, in a worst case, were the conclusions merely subjective?
- We were also flummoxed to see that only *one technology* received any potential positive impact rating or positive impact rating and it certainly was not GHPs, and it was not even Energy Efficiency!

As the issues and contentions made are rather broad, relatively unspecific, poorly supported or non existent, they appear so damaging to GHP utilization that NY-GEO requests that clarity be brought to these conclusions by the report’s preparers so that NY-GEO may frame its responses to address each contented rating directly so as to move the process along. We feel that this is a better use of everyone’s valuable time and money rather than requiring NY-GEO to respond on a broader, shotgun approach requiring much more dialogue and many more meetings to resolve.

In conclusion, NY-GEO objects to the conclusions as presented as being too broad and non-specific for us to properly respond to. We wish for the report’s preparers to submit to NY-GEO the chapter and verse that drove the preparer to these conclusions. Once we have that data in hand and had a chance to review it, we wish to file our responses and then meet with the report’s preparers and with the DPS and the PSC to offer those responses so as to resolve these indictments.