

CITY COUNCIL
CITY OF NEW YORK

-----X

TRANSCRIPT OF THE MINUTES

of the

COMMITTEE ON ENVIRONMENTAL PROTECTION

-----X

April 8, 2013
Start: 12:50 p.m.
Recess: 1:03 p.m.

HELD AT: 250 Broadway
Committee Rm., 14th Fl.

B E F O R E:
James F. Gennaro
Chairperson

COUNCIL MEMBERS:
Elizabeth S. Crowley
Stephen T. Levin
Peter F. Vallone, Jr.

1
2 CHAIRPERSON GENNARO: Okay. Thank
3 you. Thank you. Good morning and welcome. I'm
4 Councilman Jim Gennaro and I'm Chair of the
5 Committee on Environmental Protection. Today the
6 Committee will vote on Introduction 694a, a local
7 law which would require New York City to study the
8 feasibility of developing its geothermal energy
9 resources.

10 Geothermal energy operates on a
11 simple concept, harvesting the heat within the
12 earth to create clean, renewable and affordable
13 energy. The earth's core retains geothermal heat
14 from the time of the earth's formation.

15 Geothermal heat is also generated by the breakdown
16 of radioactive substances within the earth by the
17 capture of solar radiation. And that's the one we
18 are really going to talk about today. The capture
19 of solar radiation but I'll get back to that and
20 other mechanisms.

21 This geothermal heat moves via
22 conduction and convection outward from the earth's
23 core towards the surface although this is not the
24 kind of geothermal energy that we are going to be
25 harvesting with our bill but just to give you a

1
2 greater picture of the full range of this
3 technology. The result is a virtually unlimited
4 source of energy which keeps our planet's
5 subsurface at a constant warm temperature. That
6 is the upper layers. If you actually get deeper
7 into the earth of course it gets much much warmer.
8 This energy source may be accessed using
9 geothermal heat pump systems and that's what we
10 are really going to be talking about with our
11 bill.

12 The essence of a geothermal pump
13 system is they use these pumps to deliver the
14 liquid to make an exchange of heat between the
15 earth's subsurface where the temperature is a
16 stable 57 degrees Fahrenheit here in New York
17 City. That's very close to the surface. Stable
18 57 degrees Fahrenheit in New York City. That
19 means structures located above the ground can be
20 heated in winter and taking heat from underground
21 and transporting it into buildings. In the
22 summer, the system is reversed with from
23 transporting unwanted heat from buildings to the
24 ground. So basically during the summertime the
25 earth is going to use what we recall in certain

1
2 terms a heat sink and during the winter we are
3 going to use the earth as a heart source. That's
4 a good way to look at it.

5 Intro 694a would require the
6 Mayor's Office of Long Term Planning and
7 Sustainability to study the feasibility of
8 developing New York City's geothermal energy
9 resources. The study would include a map to
10 visually identify or make an estimate of areas of
11 the city where it may be appropriate to install
12 geothermal energy systems based on the subsurface
13 geologic conditions and the types of geothermal
14 systems that would be appropriate for such areas.

15 The study would also include a
16 summary of building characteristics that would be
17 suitable for retrofit and analysis to viability of
18 developing large district or campus scaled
19 geothermal ground couplings to serve building
20 clusters like you would have on a campus, a
21 summary of the applicable federal, state and city
22 laws, rules, regulations and filing requirements
23 and fees related to installing and operating
24 geothermal systems and a summary of the specific,
25 practical and legal impediments to the

1
2 installation of the geothermal systems and the
3 summary of current technical standards and/or
4 guidelines for geothermal system installations in
5 the city. And finally recommendations to promote
6 wider use of geothermal systems and
7 reconstruction, alterations and retrofits of
8 buildings.

9 The study would be admitted to the
10 Mayor and Speaker on June 1, 2014 and the
11 information that is composited made available to
12 the public on this city's open data web portal.
13 New York City has yet to fully embrace its
14 geothermal energy potential. Certainly we want to
15 change that. However, most New York City
16 buildings could utilize geothermal energy for
17 their heating and cooling needs.

18 Today's vote is a first step
19 towards a more sustainable future using cooling
20 and renewable sources of energy while also
21 generating local economic benefits. Before we
22 take a vote I just want to vote, say a couple of
23 things regarding the administration and its stand
24 on this. I want to thank them for being
25 supportive of this. Geothermal is not new to the

1
2 Bloomberg administration, they've already put some
3 brain waves into this technology by putting
4 forward a manual for the purposes of trying to
5 encourage contractors that do work for the city on
6 large government renovations to try to use this
7 technology. So we want to give a nod to the
8 Bloomberg administration for kind of opening the
9 door to this technology by putting some brain
10 waves into it and creating the manual that they
11 created. And it's great that we have that manual
12 but now we are going to proceed with actually
13 writing like the book on this and this is really
14 what this bill is all about.

15 New York City is going to write the
16 book on what it needs to advance this kind of
17 technology in New York City. So our book, so to
18 speak, is going to be geared toward the public.
19 It's going to be geared towards the industries,
20 it's going to be architects and people who would
21 have the ability to use this very good technology
22 and I also want to clear up that while there are
23 different kinds of geothermal energy this is not
24 the type of geothermal energy that would seek to
25 probe thousands or thousands of feet or miles into

1
2 the earth's core in order to try to derive and
3 transport deep earth heat, although that is a
4 viable source of geothermal energy.

5 The type of geothermal energy that
6 we're going for is actually heat from the sun that
7 has been stored in the just below the surface of
8 the earth and so it really is a way of tapping
9 into this unlimited resource. So the miracle of
10 the sunrise everyday means that everyday heat is
11 stored beneath the surface and as we said before
12 this keeps a constant temperature of 57 degrees
13 and we count on that temperature to give us the
14 ability to defuse heat in the warm weather months
15 and to draw heat during the cold winter months.

16 We want to recognize that we are
17 joined by Council member Vallone, Crowley and
18 Levin. We welcome their participation here today
19 and I want to thank in a special way, counsel to
20 the committee, Samara Swanston, who is so excited
21 about this bill she can barely contain herself so
22 we are happy to have her enthusiasm and all her
23 good work and we worked with a lot of different
24 entities to try to get this to happen. I've got a
25 list of some of the entities that we worked with

1
2 floating around here some place. Of course we
3 worked with the Bloomberg administration. We've
4 already given them a nod. You know many people
5 from the industry and as a matter of fact based on
6 what we're doing here I've been told that out in
7 Long Island they are creating a trade association
8 for geothermal contractors so we're really helping
9 to grow a very nice green business. The Plumbing
10 Foundation is involved, the Geothermal National
11 and International Initiative, American Institute
12 of Architects, this is one big, one big fun green
13 party that we're having here but it starts with
14 today's vote.

15 So with that said I wish if any of
16 the members have any statements they wish to make
17 at this time I would be happy to hear from any
18 members who wishes to make a statement and if not
19 we will proceed directly to the vote. So any
20 member have, wish to make a statement at this
21 time?

22 [no response]

23 CHAIRPERSON GENNARO: Okay. And so
24 I would urge, I'm going to ask to call the roll on
25 Proposed Intro 694a and of course I urge a yes

1
2 vote. Clerk, please call the roll.

3 [off mic]

4 CHAIRPERSON GENNARO: Pardon me?

5 Oh I'm sorry I didn't realize so yeah in order to
6 actually take the vote we need to have a quorum of
7 members in the room.

8 And the type of geothermal energy
9 that I talked about before going way down into the
10 earth's core is that kind of geothermal system is
11 really only viable in areas that are very
12 tectonically active there's no place east of
13 Mississippi where that kind of technology could be
14 utilized but everybody can utilize the constant
15 temperatures that exist right below the surface of
16 the earth. And so all over the earth we have the
17 sun's energy being stored.

18 Okay. Liz is back. And so Liz, we
19 are going to be taking the vote now and we have a
20 quorum of members present. I am very grateful for
21 that I would ask the clerk to call the roll and I
22 will reiterate that I urge a yes vote on this good
23 bill.

24 COMMITTEE CLERK: Kevin Pin,
25 Committee Clerk. Roll call on the Committee on

1
2 Environmental Protection Intro 694a. Council
3 member Gennaro.

4 CHAIRPERSON GENNARO: Yes.

5 COMMITTEE CLERK: Vallone.

6 COUNCIL MEMBER VALLONE: Yes.

7 COMMITTEE CLERK: Crowley.

8 COUNCIL MEMBER CROWLEY: Yes.

9 COMMITTEE CLERK: Levin.

10 COUNCIL MEMBER LEVIN: Yes.

11 COMMITTEE CLERK: By a vote of 4 in
12 the affirmative, 0 in the negative and no
13 abstentions. The item has been adopted. Members
14 please sign the committee reports.


15 CHAIRPERSON GENNARO: Thank you.

16 Thank you very much, Mr. Clerk and we have some
17 other members of the committee that I know are not
18 going to be able to attend today so with that this
19 meeting is adjourned.

C E R T I F I C A T E

I, Sung Bin Park certify that the foregoing transcript is a true and accurate record of the proceedings. I further certify that I am not related to any of the parties to this action by blood or marriage, and that I am in no way interested in the outcome of this matter.

Signature

A handwritten signature in cursive script, appearing to read "Sung Bin Park", written over a horizontal line.

Date __April 13, 2013