



## **Economic Impact Analysis Virginia Department of Planning and Budget**

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**4 VAC 25-170 – Geothermal Energy Regulations**  
**Department of Mines, Minerals and Energy**  
April 22, 2009

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### **Summary of the Proposed Amendments to Regulation**

The Department of Mines, Minerals and Energy (DMME) proposes to require that the map of proposed wells accompanying exploration permit applications uses the Virginia Coordinate System of 1983. The current regulations require the use of the Virginia Coordinate System of 1927. Additionally, DMME proposes to make several clarifications and to update technical language.

### **Result of Analysis**

The benefits likely exceed the costs for all proposed changes.

### **Estimated Economic Impact**

The use of the Virginia Coordinate System of 1927 has been replaced by the Virginia Coordinate System of 1983 in other DMME Division of Gas & Oil regulations. Current industry practice is to use the more modern 1983 coordinate system for describing the locations of wells and core holes. Applicants for permits under this chapter must currently convert their coordinates back to the 1927 system, as required by the regulation, in order to submit them to the DMME's Division of Gas & Oil. The process of converting each well or core hole location datum takes approximately five minutes.<sup>1</sup> If as proposed the requirement is switched from the 1927 system to the 1983 system, then firms will have about 5 minutes of their time saved for each well or core hole location datum.

According to the Department the 1983 coordinate system is more accurate and as stated above DMME already uses the 1983 system for other purposes. In addition to time saving for

firms and improved accuracy of data, having a consistent coordinate system in the department database is beneficial as well. There are no apparent costs associated with requiring the use of the 1983 coordinate system rather than the 1927 system. Thus, the proposal clearly produces a net benefit.

### **Businesses and Entities Affected**

According to the Department of Mines, Minerals and Energy, there are no companies presently developing commercial-scale geothermal resources in Virginia, and the extent of possible future developments is unknown.

### **Localities Particularly Affected**

Commercial-scale geothermal resources have, in the past, been considered in parts of Virginia where hot springs are present (Bath County, for example); but warm water from deep wells could conceivably be exploited in almost any part of the Commonwealth.<sup>2</sup>

### **Projected Impact on Employment**

The proposed amendments do not significantly affect employment.

### **Effects on the Use and Value of Private Property**

The proposal to require that the map of proposed wells accompanying exploration permit applications uses the Virginia Coordinate System of 1983 rather than the Virginia Coordinate System of 1927 will moderately reduce costs for firms engaged in geothermal exploration.

### **Small Businesses: Costs and Other Effects**

The proposed amendments do not produce costs for small businesses.

### **Small Businesses: Alternative Method that Minimizes Adverse Impact**

The proposed amendments do not adversely affect small businesses.

### **Real Estate Development Costs**

The proposed amendments moderately reduce costs for developing real estate for geothermal exploration.

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<sup>1</sup> Source: Department of Mines, Minerals and Energy

<sup>2</sup> Ibid

## Legal Mandate

The Department of Planning and Budget (DPB) has analyzed the economic impact of this proposed regulation in accordance with Section 2.2-4007.04 of the Administrative Process Act and Executive Order Number 36 (06). Section 2.2-4007.04 requires that such economic impact analyses include, but need not be limited to, the projected number of businesses or other entities to whom the regulation would apply, the identity of any localities and types of businesses or other entities particularly affected, the projected number of persons and employment positions to be affected, the projected costs to affected businesses or entities to implement or comply with the regulation, and the impact on the use and value of private property. Further, if the proposed regulation has adverse effect on small businesses, Section 2.2-4007.04 requires that such economic impact analyses include (i) an identification and estimate of the number of small businesses subject to the regulation; (ii) the projected reporting, recordkeeping, and other administrative costs required for small businesses to comply with the regulation, including the type of professional skills necessary for preparing required reports and other documents; (iii) a statement of the probable effect of the regulation on affected small businesses; and (iv) a description of any less intrusive or less costly alternative methods of achieving the purpose of the regulation. The analysis presented above represents DPB's best estimate of these economic impacts.